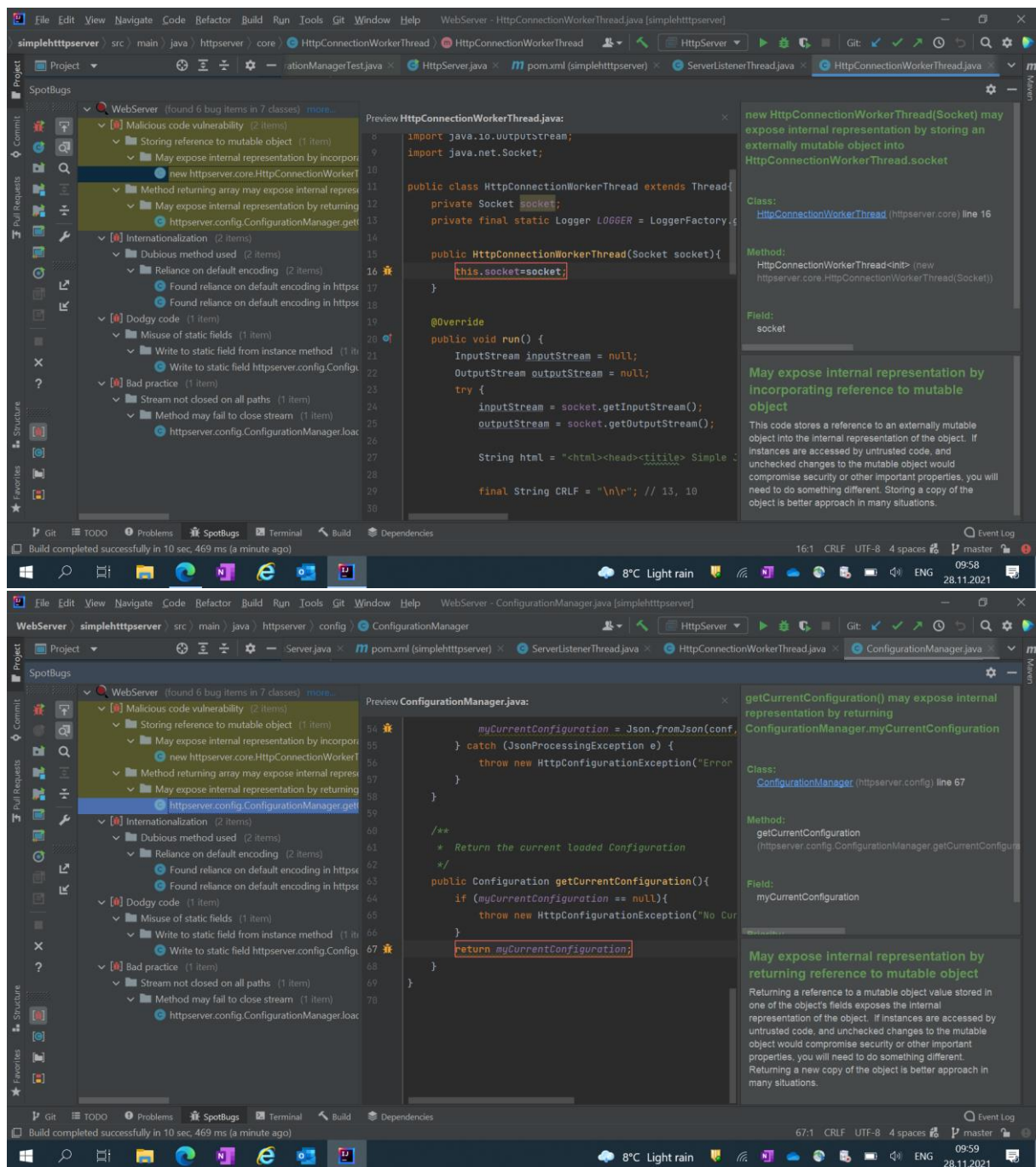


Analiza Statica

Datorita versiunii de IntelliJ instalate nu am putut adauga FindBugs ca si plugin, asa ca am folosit SpotBugs.



WebServer - ConfigurationManager.java [simplehttpserver]

WebServer | simplehttpserver | src | main | java | httpserver | config | ConfigurationManager

SpotBugs

- WebServer (found 6 bug items in 7 classes) more...
- Malicious code vulnerability (2 items)
 - Storing reference to mutable object (1 item)
 - May expose internal representation by incorporating new httpserver.core.HttpConnectionWorkerThread
 - Method returning array may expose internal representation
 - May expose internal representation by returning httpserver.config.ConfigurationManager.get...
- Internationalization (2 items)
 - Dubious method used (2 items)
 - Found reliance on default encoding in https...
 - Found reliance on default encoding in https...
- Dodgy code (1 item)
 - Misuse of static fields (1 item)
 - Write to static field from instance method (1 item)
 - Write to static field httpserver.config.Config...
- Bad practice (1 item)
 - Stream not closed on all paths (1 item)
 - Method may fail to close stream (1 item)
 - httpserver.config.ConfigurationManager.load...

Preview ConfigurationManager.java:

```
25 /**
26  * Used to load a configuration file by the path pr
27  */
28
29 public void loadConfigurationFile(String filePath) {
30     FileReader fileReader = null;
31     try {
32         fileReader = new FileReader(filePath);
33     } catch (FileNotFoundException e) {
34         throw new HttpConfigurationException(e);
35     }
36     StringBuffer sb = new StringBuffer();
37     int i;
38     while(true){
39         try {
40             if (!((i = fileReader.read()) != -1)) br
41         } catch (IOException e) {
42             throw new HttpConfigurationException(e);
43         }
44         sb.append((char)i);
45     }
46     JsonNode conf = null;
47 }
```

Found reliance on default encoding: new java.io.FileReader(String)

Class: ConfigurationManager (httpserver.config) line 33

Method: loadConfigurationFile (httpserver.config ConfigurationManager.loadConfigurationFile)

Priority: High Confidence Internationalization

Reliance on default encoding

Found a call to a method which will perform a byte to String (or String to byte) conversion, and will assume that the default platform encoding is suitable. This will cause the application behaviour to vary between platforms. Use an alternative API and specify a charset name or Charset object explicitly.

Build completed successfully in 10 sec, 469 ms (2 minutes ago)

33:1 CRLF UTF-8 4 spaces master 09:59 28.11.2021

WebServer - HttpConnectionWorkerThread.java [simplehttpserver]

WebServer | simplehttpserver | src | main | java | httpserver | core | HttpConnectionWorkerThread

SpotBugs

- WebServer (found 6 bug items in 7 classes) more...
- Malicious code vulnerability (2 items)
 - Storing reference to mutable object (1 item)
 - May expose internal representation by incorporating new httpserver.core.HttpConnectionWorkerThread
 - Method returning array may expose internal representation
 - May expose internal representation by returning httpserver.config.ConfigurationManager.get...
- Internationalization (2 items)
 - Dubious method used (2 items)
 - Found reliance on default encoding in https...
 - Found reliance on default encoding in https...
- Dodgy code (1 item)
 - Misuse of static fields (1 item)
 - Write to static field from instance method (1 item)
 - Write to static field httpserver.config.Config...
- Bad practice (1 item)
 - Stream not closed on all paths (1 item)
 - Method may fail to close stream (1 item)
 - httpserver.config.ConfigurationManager.load...

Preview HttpConnectionWorkerThread.java:

```
25 outputStream = socket.getOutputStream();
26
27 ring html = "<html><head><title> Simple Java HTTP Server
28
29 nal String CRLF = "\n\r"; // 13, 10
30
31 ring response =
32     "HTTP/1.1 200 OK" + CRLF + // Status line : HTTP
33     "Content-Length: " + html.getBytes().length
34     CRLF +
35     html +
36     CRLF + CRLF;
37
38 outputStream.write(response.getBytes());
39
40
41
42
43 {
44     sleep(5000);
45     catch (InterruptedException e) {
46         e.printStackTrace();
47     }
48     SERVER.info("Connection Processing Finished...");
49 }
```

Found reliance on default encoding: String.getBytes()

Class: HttpConnectionWorkerThread (httpserver.core) line 33

Method: run (httpserver.core.HttpConnectionWorkerThread.run())

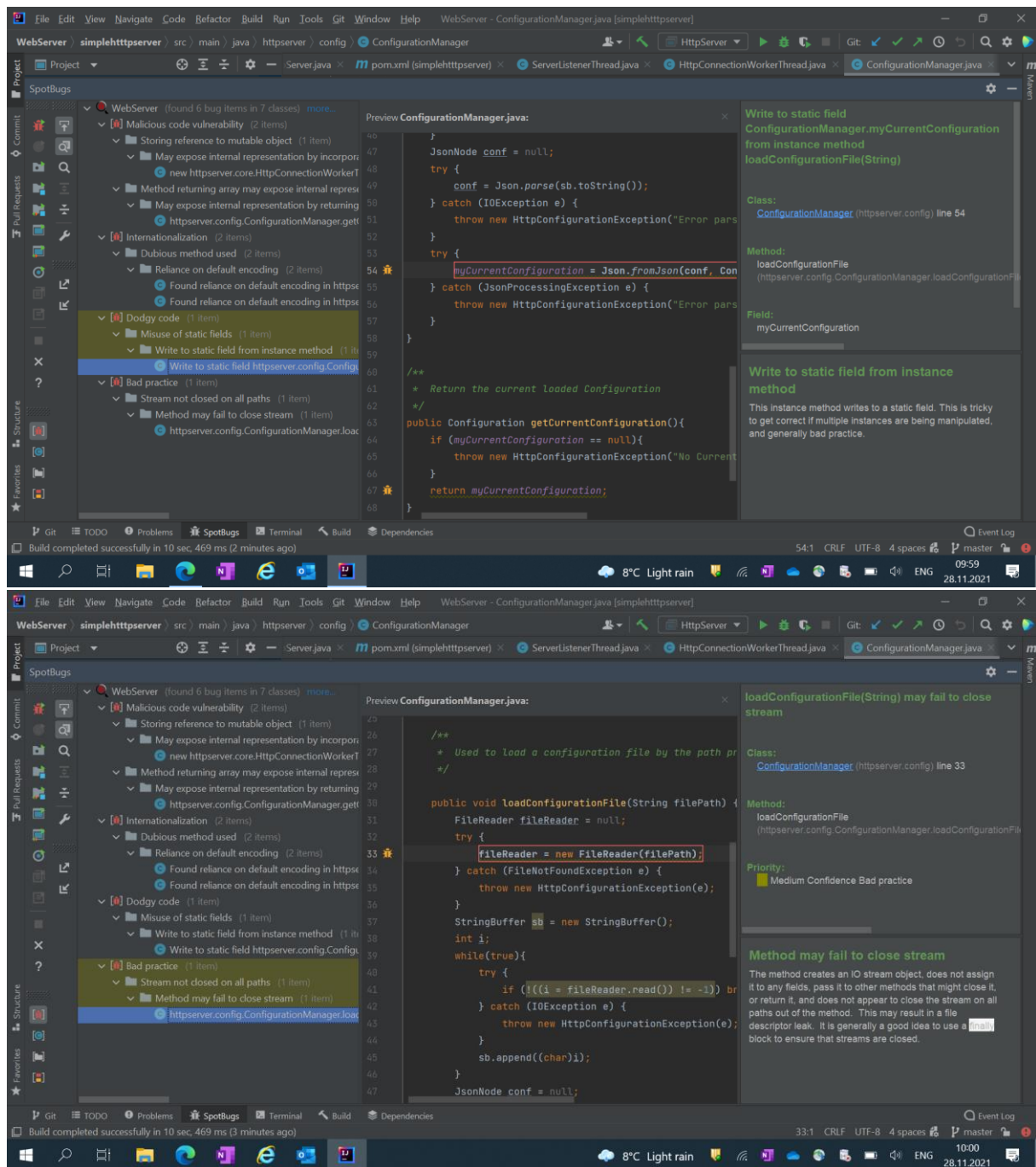
Priority: High Confidence Internationalization

Reliance on default encoding

Found a call to a method which will perform a byte to String (or String to byte) conversion, and will assume that the default platform encoding is suitable. This will cause the application behaviour to vary between platforms. Use an alternative API and specify a charset name or Charset object explicitly.

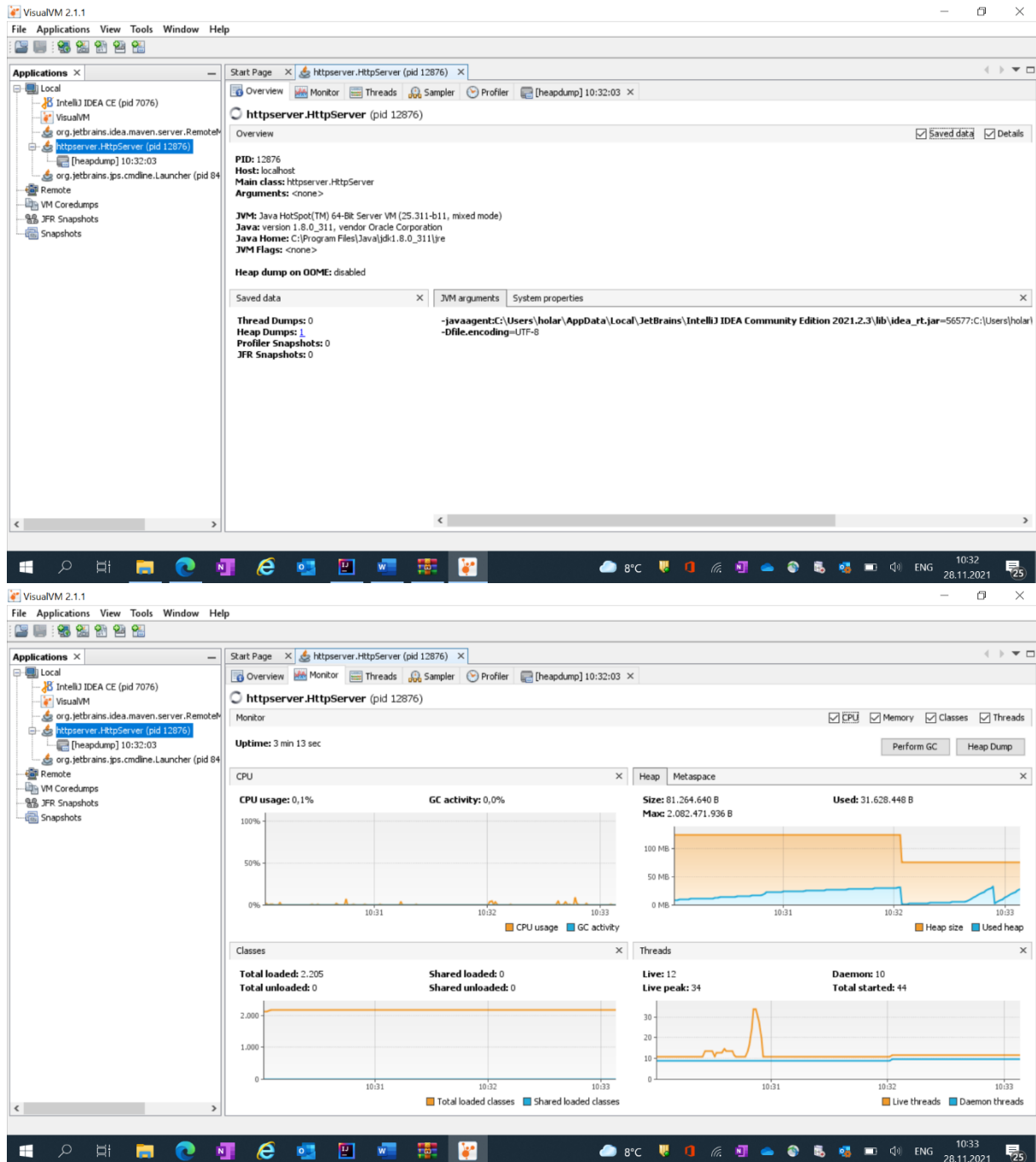
Build completed successfully in 10 sec, 469 ms (2 minutes ago)

33:1 CRLF UTF-8 4 spaces master 09:59 28.11.2021



Analiza statica realizata de tool arata locatia in cod a potentialelor bug-uri, ofera detalii si explicatii asupra motivelor producerii acestora si ne indica o posibila rezolvare.

Analiza Dinamica



Start Page x httpserver.HttpServer (pid 12876) x

Overview Monitor Threads Sampler Profiler [heapdump] 10:32:03 x

httpserver.HttpServer (pid 12876)

Sampler [Settings](#)

Sample:

Status: CPU sampling in progress

CPU samples Thread CPU time

Results: Statistics: Threads Count: 12 Total Time (CPU): 7.390 ms Thread Dump

Name	Thread Time (CPU)	Thread Time (CPU) / sec
RMI TCP Connection(3)-192.168.56.1	2.765 ms (37.4%)	0,0 ms (0%)
RMI TCP Connection(2)-192.168.56.1	2.015 ms (27.3%)	92,8 ms (9.3%)
DestroyJavaVM	921 ms (12.5%)	0,0 ms (0%)
RMI TCP Accept-0	781 ms (10.6%)	0,0 ms (0%)
Attach Listener	781 ms (10.6%)	0,0 ms (0%)
Monitor Ctrl-Break	62,5 ms (0.8%)	0,0 ms (0%)
Thread-0	31,2 ms (0.4%)	0,0 ms (0%)
JMX server connection timeout 18	15,6 ms (0.2%)	0,0 ms (0%)
RMI Scheduler(0)	15,6 ms (0.2%)	0,0 ms (0%)
Signal Dispatcher	0,0 ms (0%)	0,0 ms (0%)
Finalizer	0,0 ms (0%)	0,0 ms (0%)
Reference Handler	0,0 ms (0%)	0,0 ms (0%)

httpserver.HttpServer (pid 12876)

Sampler [Settings](#)

Sample:

Status: memory sampling in progress

Heap histogram Per thread allocations

Results: Collected data: Snapshot Perform GC Heap Dump

Name	Live Bytes	Live Objects
java.lang.Object[]	4.116.488 B (26%)	124.141 (31.3%)
java.util.TreeMap\$Entry	1.980.400 B (12.5%)	49.510 (12.5%)
java.io.ObjectStreamClass\$WeakClassKey	1.794.080 B (11.3%)	56.065 (14.1%)
char[]	1.408.392 B (8.9%)	18.412 (4.6%)
int[]	1.368.264 B (8.6%)	2.704 (0.7%)
byte[]	683.632 B (4.3%)	3.187 (0.8%)
java.util.TreeMap	384.384 B (2.4%)	8.008 (2%)
java.lang.String	337.056 B (2.1%)	14.044 (3.5%)
java.lang.Class	276.856 B (1.7%)	2.445 (0.6%)
java.util.TreeMap\$KeyIterator	265.632 B (1.7%)	8.301 (2.1%)
java.lang.StackTraceElement	215.168 B (1.4%)	6.724 (1.7%)
java.io.SerialCallbackContext	212.376 B (1.3%)	8.849 (2.2%)
javax.management.openmbean.CompositeDataSupport	191.712 B (1.2%)	7.988 (2%)
java.lang.Long	191.136 B (1.2%)	7.964 (2%)
java.lang.Boolean	138.928 B (0.9%)	8.683 (2.2%)
java.lang.reflect.Method	130.240 B (0.8%)	1.480 (0.4%)
java.io.ObjectStreamClass	128.232 B (0.8%)	1.233 (0.3%)
java.util.TreeMap\$EntrySet	127.936 B (0.8%)	7.996 (2%)

OverviewMonitorThreadsSamplerProfiler[heapdump] 10:32:03 ×

httpserver.HttpServer (pid 12876)

Heap Dump

Summary

Heap

Size:	2.945.063 B
Classes:	2.432
Instances:	47.336
Classloaders:	91
GC Roots:	1.784
Objects Pending for Finalization:	0

Environment

System	Windows 10 (10.0)
Architecture:	amd64 64bit
Java Home:	C:\Program Files\Java\jdk1.8.0_311\jre
Java Version:	1.8.0_311
Java Name:	Java HotSpot(TM) 64-Bit Server VM (25.311-b11, mixed mode)
Java Vendor:	Oracle Corporation
JVM Uptime:	2 min 08 sec

System Properties [show]

Classes by Number of Instances [view all]

char[]	9.740	(20,6%)
java.lang.String	9.681	(20,5%)
java.lang.Object[]	2.127	(4,5%)
java.lang.Class[]	1.832	(3,9%)
java.util.concurrent.ConcurrentHashMap\$Node	1.812	(3,8%)

Classes by Size of Instances [view all]

char[]	758.960 B	(25,8%)
java.lang.String	271.068 B	(9,2%)
java.lang.reflect.Method	216.080 B	(7,3%)
byte[]	202.571 B	(6,9%)
java.lang.Object[]	200.656 B	(6,8%)

Instances by Size [view all]

char[]#3055 : ...	16.408 B	(0,6%)
char[]#3056 : hread-33] INFO httpserver.core.HttpConnectionWc	16.408 B	(0,6%)
char[]#1027 [GC root - Java frame] : ...	16.408 B	(0,6%)
char[]#249 : com.fasterxml.jackson.databind;version="2.9.9";use	15.518 B	(0,5%)
byte[]#6 : 10.908 items	10.932 B	(0,4%)

Dominators by Retained Size [view all]

Retained sizes must be computed first:

Compute Retained Sizes