



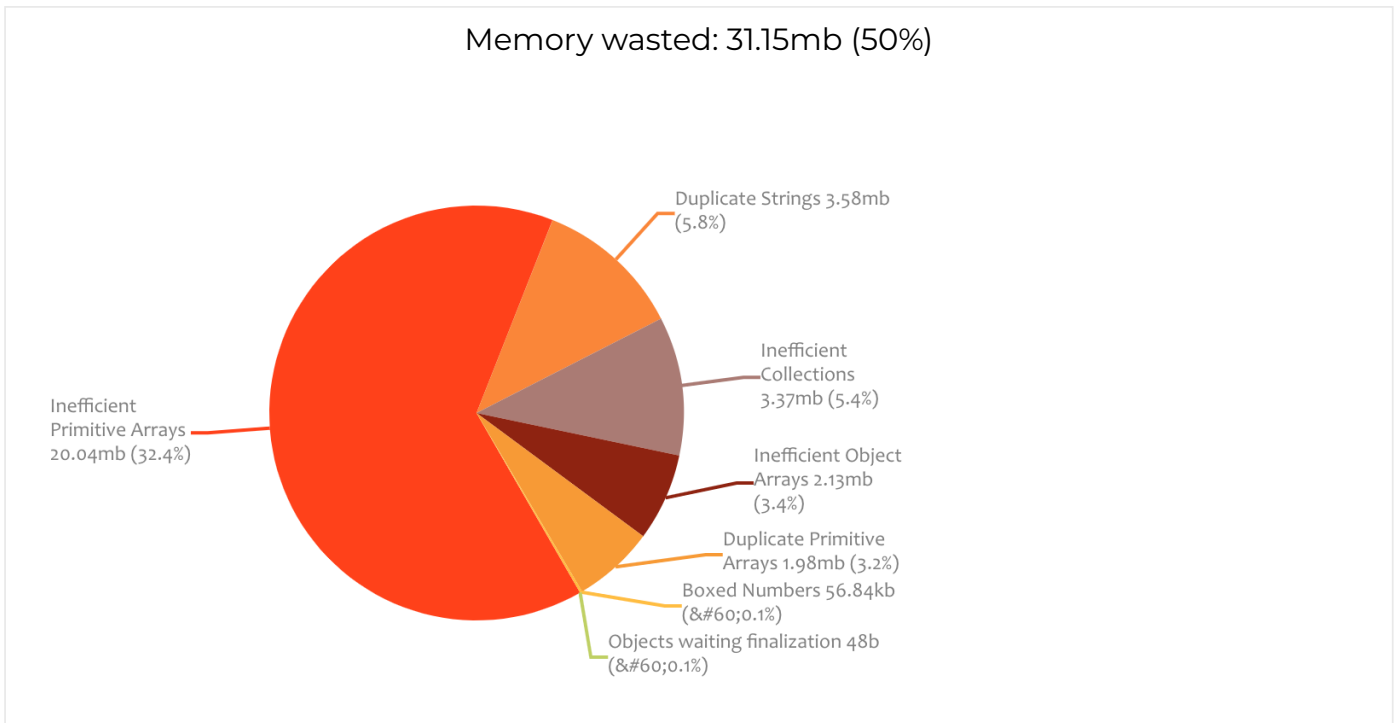
[Export as PDF](#)

(./heap-report2_0.jsp?isPrinterFriendly=true)

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1. Heap Statistics

Learn more about Heap Statistics (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#HeapStat>)



Total Size

61.79mb

Class Count

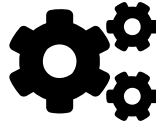
20,459

Object Count



804,565

Thread Count



84

2. What's in your Memory (by class)?

Learn more about [What's in Memory](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Whats) (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Whats>).


Class	Percentage	Size	Count
byte[] (./heap-report-a-class.jsp?id=0)	39.0%	24.09mb	6,095
String (./heap-report-a-class.jsp?id=1)	22.3%	13.76mb	124,699
j.u.HashMap (./heap-report-a-class.jsp?id=2)	9.1%	5.61mb	13,475
int[] (./heap-report-a-class.jsp?id=3)	2.9%	1.78mb	8,447
Object[] (./heap-report-a-class.jsp?id=4)	2.9%	1.76mb	32,846
j.u.LinkedHashMap (./heap-report-a-class.jsp?id=5)	2.2%	1.34mb	5,445

[Show all records >>](#)

3. Large objects

Learn more about [Large Objects](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Large) (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Large>).

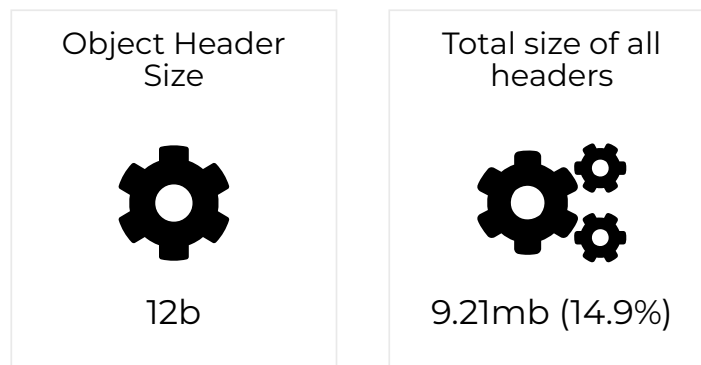
Name	Percentage	Size
------	------------	------

 Java Static com.mysql.cj.jdbc.NonRegisteringDriver.connectionPhantomRefs  (/heap-report- α -object.jsp?id=0) <<Object might be causing memory leak.>> (/heap-report- α -object.jsp?id=0)	35.6%	21.98mb
Java Static org.jboss.modules.DefaultBootModuleLoaderHolder.INSTANCE  (/heap-report- α -object.jsp?id=1)	10.2%	6.31mb
Java Static org.jboss.as.naming.NamingContext.ACTIVE_NAMING_STORE  (/heap-report- α -object.jsp?id=2)	7.4%	4.55mb
Java Static [com.arjuna.ats.arjuna.coordinator.TransactionReaper._reaperWorkerThread] , Java Local(com.arjuna.ats.internal.arjuna.coordinator.ReaperWorkerThread) [@e08fb6e0], Thread Block [@e08fb6e0](1 thread(s))  (/heap-report- α -object.jsp?id=3)	6.1%	3.79mb
Java Static com.arjuna.ats.arjuna.tools.osb.util.JMXServer.server  (/heap-report- α -object.jsp?id=4)	5.1%	3.15mb
... and 28610 more objects retaining 9.02mb (14.6%)		

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4. Object Headers

Learn more about [Object Headers](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Object) (https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Object).



Top Object Headers

Class	Percentage	Total header size	Avg obj size	Count
j.u.HashMap\$Node	2.5%	1.53mb	32	133,628
char[]	2.3%	1.43mb	101	125,171
String	2.3%	1.43mb	24	124,699

Object[]	0.6%	384.91kb	76	32,846
j.u.LinkedHashMap\$Entry	0.4%	262.05kb	40	22,362

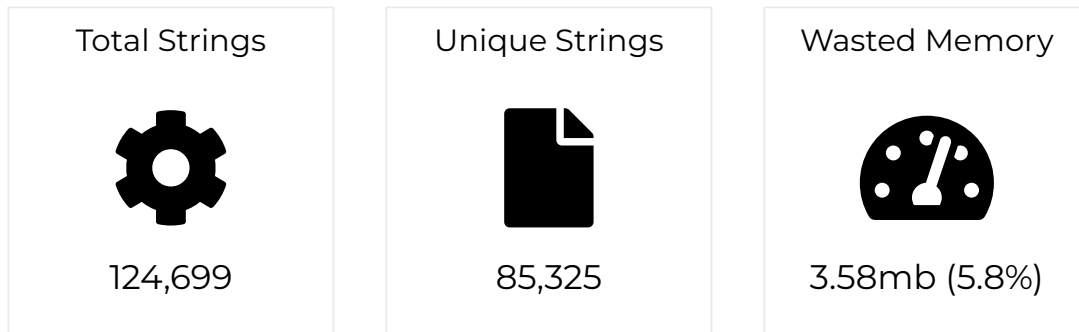
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How to fix excessive Object headers?

Please refer to our [recommendations](#). ([heap-recommendations\object-headers.html](#))

5. Duplicate Strings

Learn more about [Duplicate Strings](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#String) (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#String>).








Top Duplicate Strings

Duplicate String	Percentage	Wasted	Count
"false"	0.2%	129.01kb	2,360
"java.lang.String"	0.2%	97.03kb	1,381
"<p class="changed_added_2_2">Per the WAI-ARIA spec and its \n relationship to HTML5 (Section title ARIA Role At ...[length 884]"	0.1%	79.45kb	46
"<p>\n \n MethodExpression representing a value change listener method \n that will ...[length 775]"	<0.1%	38.87kb	26
"JBoss by Red Hat"	<0.1%	27.63kb	394

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Who is holding Duplicate Strings?

Object Tree	Percentage	size
-------------	------------	------

org.jboss.metadata.javaee.spec.DescriptionImpl.description  (./heap-report-type-reference.jsp?id=0&type=ds)	0.9%	596K
org.teiid.deployers.ExtendedPropertyMetadata.name  (./heap-report-type-reference.jsp?id=1&type=ds)	0.3%	205K
org.jboss.modules.ModuleDependencySpec.name  (./heap-report-type-reference.jsp?id=2&type=ds)	0.2%	115K
org.apache.jasper.deploy.TagInfo.infoString  (./heap-report-type-reference.jsp?id=3&type=ds)	0.1%	92K
org.apache.jasper.deploy.TagAttributeInfo.name  (./heap-report-type-reference.jsp?id=4&type=ds)	0.1%	70K

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How to fix Duplicate Strings?

Please refer to our [recommendations.\(heap-recommendations\duplicate-strings.html\)](#)

6. Inefficient collections

Learn more about [Inefficient Collections](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Ineff) (https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Ineff).








Top inefficient collections

Problem	Percentage	Wasted
30% of j.u.HashMap contains 1 element only	0.8%	513.15kb
42% of j.u.LinkedHashMap contains 1 element only	0.6%	354.34kb
41% of j.u.ArrayList contains 1 element only	0.5%	342.9kb
15% of j.u.HashMap contains 2 - 4 elements only	0.5%	340.98kb
4% of j.u.HashMap contains half empty elements	0.4%	253.92kb

[Show all records >>](#)

🔍 Who is holding Inefficient Collections?

Object Tree	Percentage	size
j.u.Collections\$UnmodifiableMap.m  (./heap-report-type-reference.jsp?id=0&type=ic)	0.2%	112K
j.u.Collections\$UnmodifiableRandomAccessList.c  (./heap-report-type-reference.jsp?id=1&type=ic)	0.2%	102K
{j.u.HashMap}.values  (./heap-report-type-reference.jsp?id=2&type=ic)	0.1%	92K
java.util.jar.JarFile.streams  (./heap-report-type-reference.jsp?id=3&type=ic)	0.1%	90K
j.u.Collections\$UnmodifiableRandomAccessList.c  (./heap-report-type-reference.jsp?id=4&type=ic)	0.1%	71K

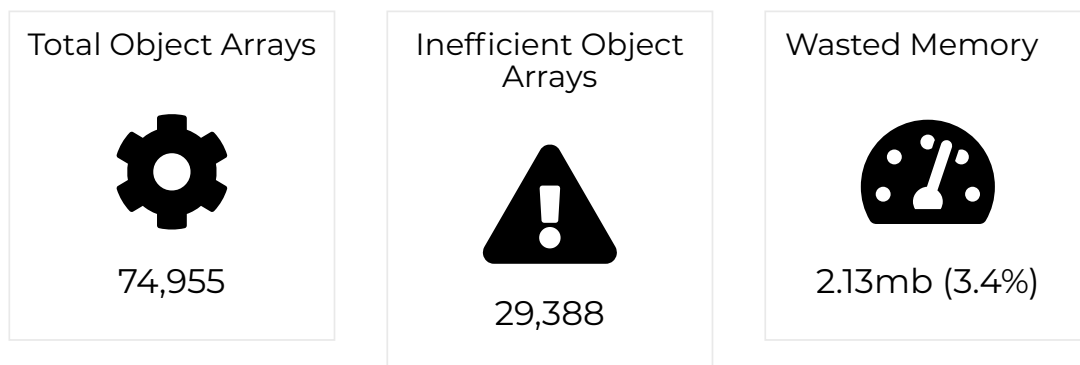
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🔧 How to fix Inefficient Collections?

Please refer to our [recommendations](#). (heap-recommendations\inefficient-collections.html)

7. Inefficient Object Arrays

Learn more about [Inefficient Object Arrays](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#IneffObj) (https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#IneffObj)








🔍 Top inefficient Object Arrays

Problem	Percentage	Wasted
2% of Object[] contains half empty elements	1.0%	635.58kb
17% of Object[] contains no elements	0.8%	490.16kb

10% of Object[] contains 1 element only	0.3%	169.59kb
12% of j.u.HashMap\$Node[] contains 1 element only	0.2%	151.77kb
34% of java.nio.ByteBuffer[] contains 1 element only	0.2%	144.59kb

[Show all records >>](#)

🔍 Who is holding Inefficient Object Arrays?

Object Tree	Percentage	size
org.teiid.core.types.DataTypeManager\$.cache  (./heap-report-type-reference.jsp?id=0&type=ioa)	0.8%	506K
Unreachable (garbage) objects  (./heap-report-type-reference.jsp?id=1&type=ioa)	0.4%	230K
org.jboss.metadata.javaee.support.NonNullLinkedHashMap.table  (./heap-report-type-reference.jsp?id=2&type=ioa)	0.2%	141K
sun.nio.ch.Util\$BufferCache.buffers  (./heap-report-type-reference.jsp?id=3&type=ioa)	0.2%	128K
org.jboss.msc.service.IdentityHashSet.table  (./heap-report-type-reference.jsp?id=4&type=ioa)	0.1%	64K

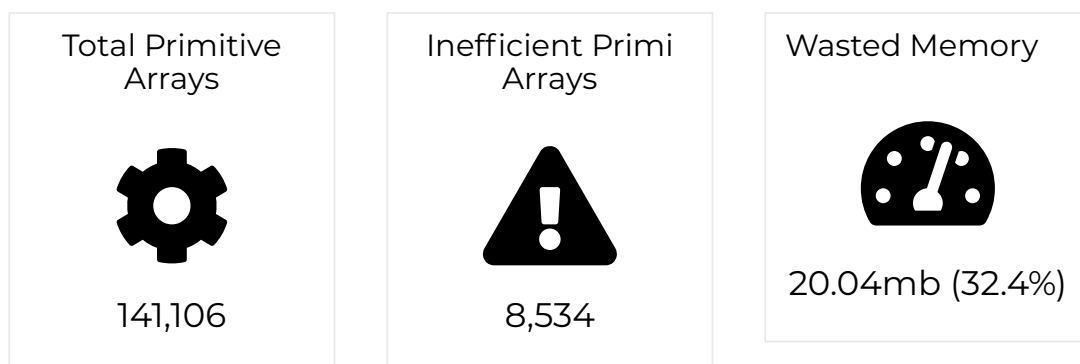
[Show all records >>](#)

🔧 How to fix Inefficient Object Arrays?

Please refer to our [recommendations](#).(heap-recommendations\inefficient-object-arrays.html).

8. Inefficient Primitive Arrays

Learn more about [Inefficient Primitive Arrays](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Ineffprim) (https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Ineffprim).



💡 Top inefficient Primitive Arrays

Problem	Percentage	Wasted
3% of byte[] contains lot of 0s	27.6%	17.04mb
5% of int[] contains lot of 0s	1.7%	1.04mb
1% of byte[] contains no elements	1.0%	651.52kb
< 0.1% of char[] contains no elements	0.8%	487kb
< 0.1% of char[] contains lot of 0s	0.7%	470.93kb

[Show all records >>](#)

🔍 Who is holding Inefficient Primitive Arrays?

Object Tree	Percentage	size
com.mysql.cj.protocol.a.NativePacketPayload.byteBuffer (/heap-report-type-reference.jsp?id=0&type=ipa)	26.1%	16,536K
sun.nio.ch.EPollArrayWrapper.eventsLow (/heap-report-type-reference.jsp?id=1&type=ipa)	0.8%	509K
sun.nio.ch.EPollArrayWrapper.eventsLow (/heap-report-type-reference.jsp?id=2&type=ipa)	0.6%	384K
org.teiid.query.parser.JavaCharStream.bufcolumn (/heap-report-type-reference.jsp?id=3&type=ipa)	0.4%	269K
org.teiid.query.parser.JavaCharStream.bufline (/heap-report-type-reference.jsp?id=4&type=ipa)	0.4%	269K

[Show all records >>](#)

🔧 How to fix Inefficient Primitive Arrays?

Please refer to our [recommendations \(heap-recommendations\inefficient-primitive-arrays.html\)](#)

9. Boxed Numbers

Learn more about [Boxed Numbers \(https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Box\)](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Box)

Not Detected

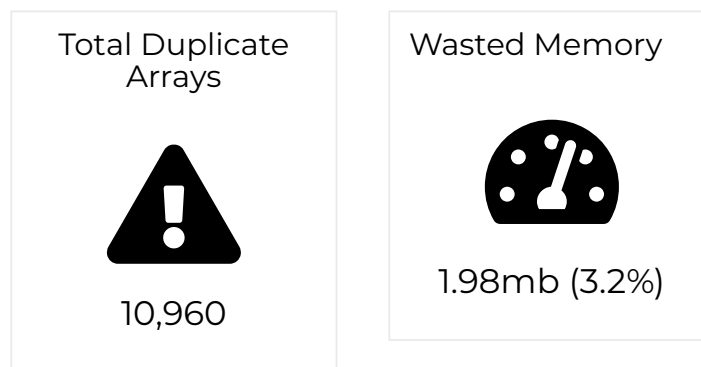
10. Duplicate Objects

Learn more about [Duplicate Objects](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#DupObject) (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#DupObject>).

Not Detected

11. Duplicate Primitive Arrays

Learn more about [Duplicate Primitive Arrays](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#DupArray) (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#DupArray>).



☰ Types of Duplicate Arrays

Array Type	Percentage	Wasted	Duplicate Count
byte[]	1.4%	909.4kb	3,192
int[]	1.4%	906.92kb	6,330
char[]	0.3%	159.96kb	313
boolean[]	<0.1%	30.52kb	730
short[]	<0.1%	18.84kb	242

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💡 Top Duplicate Arrays

Duplicate Array	Percentage	Wasted	Count
byte[65536](0, ...)	0.8%	512.12kb	9
int[4096](1, ...)	0.4%	272.27kb	18

byte[65536](0, ...)	0.2%	128.03kb	3
int[4096](1, ...)	0.2%	112.11kb	8
int[0]()	0.1%	80.55kb	5,156

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? Who is holding Duplicate Arrays?

Object Tree	Percentage	size
sun.nio.ch.EPollArrayWrapper.eventsLow  (./heap-report-type-reference.jsp?id=0&type=dpa)	0.5%	341K
org.teiid.query.parser.JavaCharStream.bufline  (./heap-report-type-reference.jsp?id=1&type=dpa)	0.3%	217K
org.teiid.query.parser.JavaCharStream.bufline  (./heap-report-type-reference.jsp?id=2&type=dpa)	0.3%	198K
sun.nio.ch.EPollArrayWrapper.eventsLow  (./heap-report-type-reference.jsp?id=3&type=dpa)	0.3%	170K
org.teiid.common.buffer.impl.ConcurrentBitSet\$Segment.topVals  (./heap-report-type-reference.jsp?id=4&type=dpa)	0.2%	146K

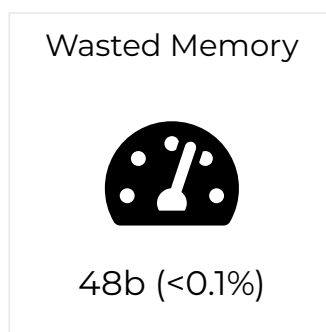
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🔧 How to fix Duplicate Arrays?


Please refer to our [recommendations](#).(heap-recommendations\duplicate-primitive-arrays.html)

12. Objects waiting for Finalization

Learn more about [Objects waiting for Finalization](https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#ObjFin) (https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#ObjFin).



? What are the objects waiting for finalization?

To see objects waiting for finalization, [click here](#).  ([heap-report-finalization-tree.jsp](#)).

How to fix objects waiting for finalization?

Please refer to our [recommendations](#). ([heap-recommendations\objects-waiting-finalization.html](#)).

13. Threads

Learn more about [Threads](#). (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Thread>).



To view all threads stacktrace [click here](#).  ([heap-thread-progress.jsp](#)).

14. Heap settings

Learn more about [Heap Settings](#). (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#HeapSet>).

No major recommendations.

15. System Properties

Learn more about [System Properties](#). (<https://blog.heaphero.io/2018/04/13/heaphero-user-manual-2/#Sys>).

Key	Value
[Standalone]	
awt.toolkit	sun.awt.X11.XToolkit
file.encoding	ANSI_X3.4-1968
file.encoding.pkg	sun.io
file.separator	/

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REACH US

 Dublin, CA, USA

 +1-415-948-5431

 team@tier1app.com (<mailto:team@tier1app.com>)

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