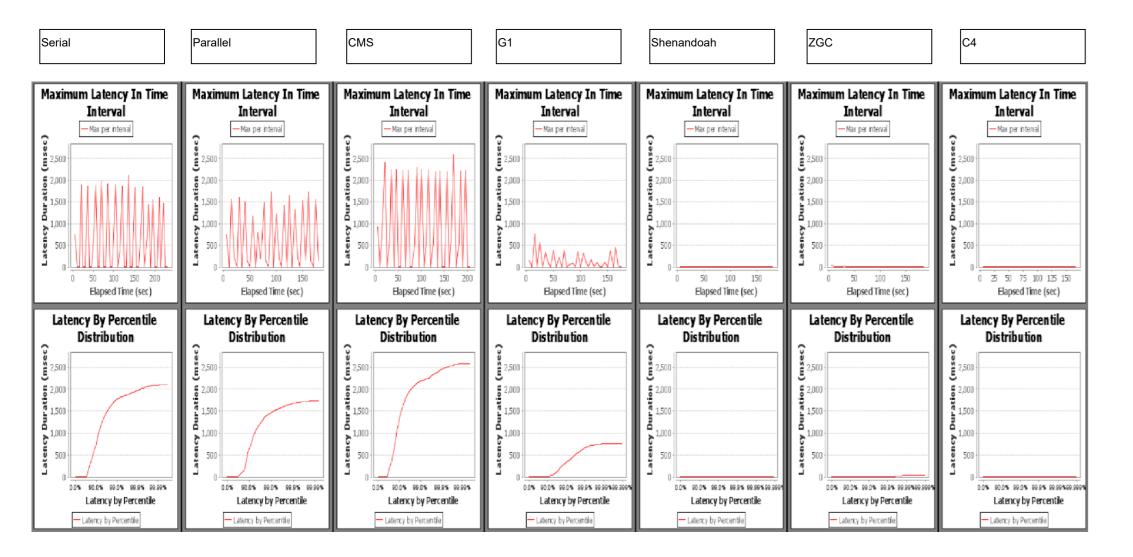


Performance



Try it out

https://github.com/Raymondma-public/garbage-collector-latency-test

Logging

Log pause time https://plumbr.io/blog/performance-blog/logging-stop-the-world-pauses-in-jvm java 8 -XX:+PrintGCApplicationStoppedTime -XX:+PrintGCApplicationConcurrentTime -Xlog:gc,safepoint:./gc-\$enableGCOpt.log -Xlog:gc,safepoint:gc.log:time,uptime,level,tags:filecount=1,filesize=100M - gc: about garbage collection - safepoints. This term is also often used to refer to all the STW pauses - time: show time - uptime: time counting from process start - level: eg. info - tags: eg. gc/ safepoint - filecount: extra archive file count - file size: size of log file

https://www.baeldung.com/jvm-parameters -XX:+UseGCLogFileRotation -XX:NumberOfGCLogFiles=10 -XX:GCLogFileSize=50M -Xloggc:/home/ryma/log/gc.log

https://docs.azul.com/prime/Unified-GC-Logging

https://docs.oracle.com/javase/9/tools/java.htm#GUID-BE93ABDC-999C-4CB5-A88B-1994AAAC74D5_CONVERTGCLOGGINGFLAGSTOXLOG Some options are removed from Java 9

Old GC Logging Option(Before Java 9) Unified GC Logging Configuration(After Java 9) PrintGC
PrintGCDetails
PrintGCTimeStamps
PrintGCDateStamps
PrintGCApplicationConcurrentTime
PrintGCApplicationStoppedTime
PrintGCApplicationStoppedTime

-Xlog:gc
-Xlog:gc*
-Xlog:gc
-Xlog:gc*
-Xlog:gc
-Xlog:gc
-Xlog:safepoint
-Xlog:safepoint

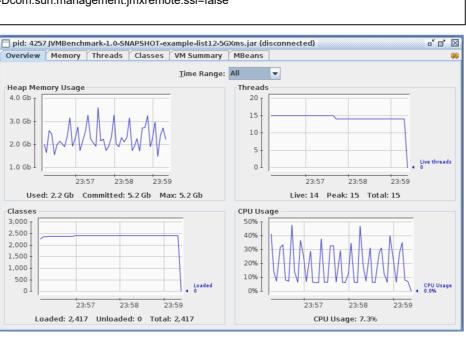
https://krzysztofslusarski.github.io/2020/11/13/stw.html

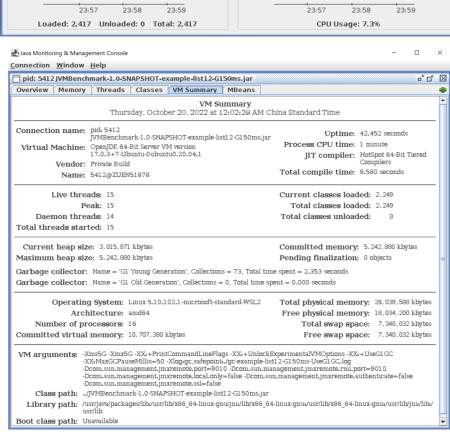
GC log explained https://sematext.com/blog/java-garbage-collection-logs/

Monitoring

JMX remote & JConsole

JMX remote Simplest way to enable JMX remote -Dcom.sun.management.jmxremote.port=9010 -Dcom.sun.management.jmxremote.rmi.port=9010 -Dcom.sun.management.jmxremote.local.only=false -Dcom.sun.management.jmxremote.authenticate=false -Dcom.sun.management.jmxremote.ssl=false





jHiccup

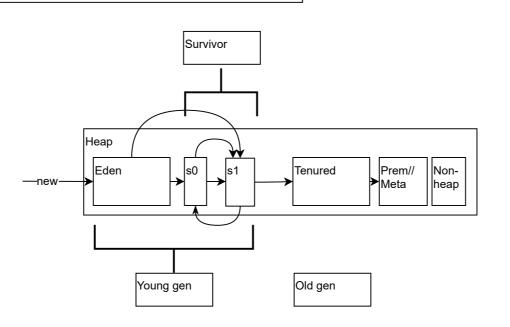
For getting hiccup data. Will generate a .hlog file java -javaagent:../jHiccup.jar -jar YouProgram.jar https://www.azul.com/products/components/jhiccup/ How it works: https://docs.azul.com/prime/jHiccup

Mapping Old and Unified GC Logging Options
The table below contains a list of old GC logging command-line options and their unified GC logging equivalents.

HistogramLogAnalyzer

For visualizing hiccup data from .hlog file https://github.com/HdrHistogram/HistogramLogAnalyzer

Java Memory Model



High level concept

