# JVM Options Cheat Sheet



## **STANDARD OPTIONS**

#### \$ java

List all standard options.

#### -Dblog=JRebelBlog

Sets a 'blog' system property to 'JRebelBlog'. Retrieve/set it during runtime like this:

System.getProperty("blog");
//JRebelBlog

System.setProperty("blog", "JR");

-javaagent:/path/to/agent.jar Loads the java agent in agent.jar.

#### -agentpath:pathname

Loads the native agent library specified by the absolute path name.

#### -verbose:[class/gc/jni]

Displays information about each loaded class/gc event/JNI activity.

## **NON-STANDARD OPTIONS**

## \$ java -X

List all non-standard options.

#### -Xint

Runs the application in interpreted-only mode.

# -Xbootclasspath:path

Path and archive list of boot class files.

## -Xloggc:filename

Log verbose GC events to filename.

### -Xms1g

Set the initial size (in bytes) of the heap.

#### -Xmx8q

Specifies the max size (in bytes) of the heap.

## -Xnoclassgc

Disables class garbage collection.

## -Xprof

Profiles the running program.

## **ADVANCED OPTIONS**

#### **BEHAVIOR**

## -XX:+UseConcMarkSweepGC

Enables CMS garbage collection.

#### -XX:+UseParallelGC

Enables parallel garbage collection.

#### -XX:+UseSerialGC

Enables serial garbage collection.

#### -XX:+UseG1GC

Enables G1GC garbage collection.

#### **DEBUGGING**

#### -XX:ErrorFile=file.log

Save the error data to file.log.

## -XX:+HeapDumpOnOutOfMemoryError

Enables heap dump when OutOfMemoryError is thrown.

## -Xlog:gc

Enables printing messages during garbage collection.

## -XX:+TraceClassLoading

Enables Trace loading of classes.

## -XX:+PrintClassHistogram

Enables printing of a class instance histogram after a Control+C event (SIGTERM).

#### **PERFORMANCE**

#### -XX:ThreadStackSize=256k

Sets Thread Stack Size (in bytes).

(Same as -Xss256k)

## -XX:G1HeapRegionSize=4m

Sets the sub-division size of G1 heap (in bytes).

#### -XX:MaxGCPauseMillis=n

Sets a target for the maximum GC pause time.

#### -XX:MaxNewSize=256m

Max size of new generation (in bytes).

## -XX:OnError="<cmd args>"

Run user-defined commands on fatal error.

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