1. How often garbage collection happens?

**Time taken by YoungGen GC is 0.048 seconds.**

**4.902: [GC (Allocation Failure) --[PSYoungGen: 11912K->11912K(19200K)] 52872K->52876K(62976K), 0.0484055 secs] [Times: user=0.00 sys=0.00, real=0.05 secs]**

1. How long full GC usually takes?

**Time taken by Full GC is 0.0083460 secs.**

**4.950: [Full GC (Ergonomics) [PSYoungGen: 11912K->10637K(19200K)] [ParOldGen: 40964K->40961K(43776K)] 52876K->51598K(62976K), [Metaspace: 2051K->2051K(4480K)], 0.0083460 secs] [Times: user=0.02 sys=0.00, real=0.01 secs]**

**4.961: [Full GC (Allocation Failure) [PSYoungGen: 10637K->10612K(19200K)] [ParOldGen: 40965K->40961K(43776K)] 51602K->51573K(62976K), [Metaspace: 2051K->2051K(4480K)], 0.0048097 secs] [Times: user=0.00 sys=0.00, real=0.00 secs]**

**Complete GC Log:**

Java HotSpot(TM) Server VM (25.77-b03) for windows-x86 JRE (1.8.0\_77-b03), built on Mar 20 2016 21:57:58 by "java\_re" with MS VC++ 10.0 (VS2010)

Memory: 4k page, physical 4182528k(1520112k free), swap 5610192k(2013252k free)

CommandLine flags: -XX:InitialHeapSize=66920448 -XX:MaxHeapSize=734003200 -XX:+PrintGC -XX:+PrintGCDetails -XX:+PrintGCTimeStamps -XX:-UseLargePagesIndividualAllocation -XX:+UseParallelGC

16.770: [GC (Allocation Failure) [PSYoungGen: 11912K->464K(19200K)] 482952K->471508K(497152K), 0.0054683 secs] [Times: user=0.00 sys=0.00, real=0.01 secs]

16.991: [GC (Allocation Failure) --[PSYoungGen: 11036K->11036K(19200K)] 482081K->482081K(497152K), 0.0057401 secs] [Times: user=0.00 sys=0.00, real=0.01 secs]

16.997: [Full GC (Ergonomics) [PSYoungGen: 11036K->0K(19200K)] [ParOldGen: 471044K->205183K(229632K)] 482081K->205183K(248832K), [Metaspace: 2057K->2057K(4480K)], 0.1124892 secs] [Times: user=0.38 sys=0.02, real=0.11 secs]

20.233: [GC (Allocation Failure) --[PSYoungGen: 10903K->10903K(19200K)] 482327K->482327K(497152K), 0.0045414 secs] [Times: user=0.11 sys=0.00, real=0.00 secs]

20.238: [Full GC (Ergonomics) [PSYoungGen: 10903K->10240K(19200K)] [ParOldGen: 471424K->471423K(477952K)] 482327K->481664K(497152K), [Metaspace: 2058K->2058K(4480K)], 0.0625154 secs] [Times: user=0.47 sys=0.00, real=0.06 secs]

20.301: [GC (Allocation Failure) --[PSYoungGen: 10240K->10240K(19200K)] 481664K->481664K(497152K), 0.0063051 secs] [Times: user=0.00 sys=0.00, real=0.01 secs]

20.307: [Full GC (Allocation Failure) [PSYoungGen: 10240K->10240K(19200K)] [ParOldGen: 471423K->471398K(477952K)] 481664K->481638K(497152K), [Metaspace: 2058K->2058K(4480K)], 0.0655199 secs] [Times: user=0.49 sys=0.00, real=0.07 secs]

Heap

PSYoungGen total 19200K, used 10738K [0x2ecc0000, 0x30200000, 0x3d600000)

eden space 16640K, 64% used [0x2ecc0000,0x2f73ca70,0x2fd00000)

from space 2560K, 0% used [0x2fd00000,0x2fd00000,0x2ff80000)

to space 2560K, 0% used [0x2ff80000,0x2ff80000,0x30200000)

ParOldGen total 477952K, used 471398K [0x11a00000, 0x2ecc0000, 0x2ecc0000)

object space 477952K, 98% used [0x11a00000,0x2e659a28,0x2ecc0000)

Metaspace used 2079K, capacity 2280K, committed 2368K, reserved 4480K

Memory Distribution:

