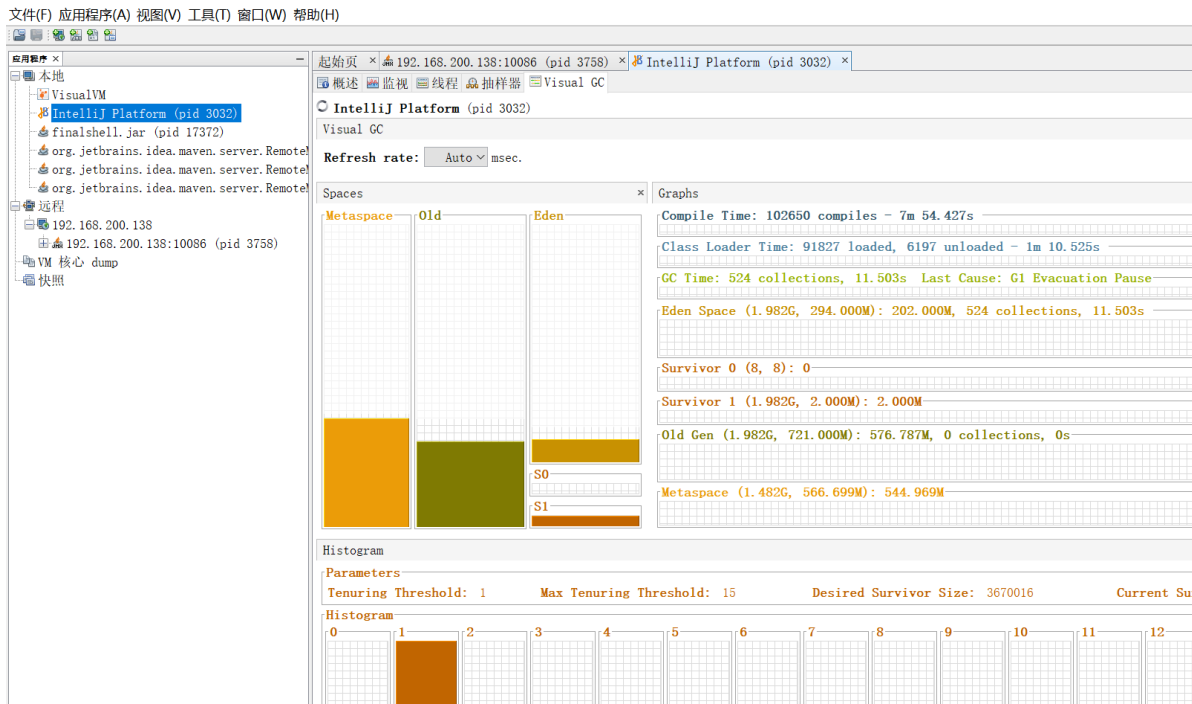


# 1 jvisualvm/jconsole



## 案例1 死锁问题定位

```
java -jar ytao-springboot-demo.jar
```

<http://localhost:8070/user/getUser/3>

<http://localhost:8070/user/testlock>

## 案例2 oom 内存溢出案例

```
java -jar -Xmx128m -Xms128m -XX:+HeapDumpOnOutOfMemoryError ytao-springboot-demo.jar
```

<http://localhost:8070/user/testMemory>

# 2 线上监控

```
java -Djava.rmi.server.hostname=192.168.200.138 -Dcom.sun.management.jmxremote.port=10086 \-Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.authenticate=false \-jar ytao-springboot-demo.jar
```



<http://192.168.200.138:8070/user/testlock>

<http://192.168.200.138:8070/user/testMemory>

## 3 命令行监控

```
[root@192 ~]# jstack 3758
2022-06-20 18:15:13
Full thread dump Java HotSpot(TM) 64-Bit Server VM (25.221-b11 mixed mode):

"Attach Listener" #35 daemon prio=9 os_prio=0 tid=0x00007f6468003800 nid=0x13427 waiting on condition [0x0000000000000000]
java.lang.Thread.State: RUNNABLE

"JMX server connection timeout 34" #34 daemon prio=5 os_prio=0 tid=0x0000000002360000 nid=0x12235 in Object.wait() [0x00007f6468003800]
java.lang.Thread.State: TIMED_WAITING (on object monitor)
  at java.lang.Object.wait(Native Method)
  at com.sun.jmx.remote.internal.ServerCommunicatorAdmin$Timeout.run(ServerCommunicatorAdmin.java:168)
  - locked <0x00000000f2d40500> (a [I)
  at java.lang.Thread.run(Thread.java:748)
```

ps -ef|grep java

jstack pid

jstack -l pid

内存监控

jmap -dump:format=b,file=/root/my.dump 34739

垃圾回收

jstat -gc pid

进程高的线程

top -Hp pid

## 4 阿里arthas监控

```
[INFO] File size: 11.44 MB, downloaded size: 10.81 MB, downloading ...
[INFO] File size: 11.44 MB, downloaded size: 10.93 MB, downloading ...
[INFO] File size: 11.44 MB, downloaded size: 11.17 MB, downloading ...
[INFO] File size: 11.44 MB, downloaded size: 11.34 MB, downloading ...
[INFO] Download arthas success.
[INFO] arthas home: /root/.arthas/lib/3.3.9/arthas
[INFO] Try to attach process 3800
[INFO] Attach process 3800 success.
[INFO] arthas-client connect 0.0.0.0 3658

ARTHAS

wiki      https://arthas.aliyun.com/doc
tutorials https://arthas.aliyun.com/doc/arthas-tutorials.html
version   3.3.9
pid       3800
```

## 5 Prometheus+grafana集成监控

Spring Boot(java) 集成 Prometheus

[https://blog.51cto.com/u\\_1472521/3714457](https://blog.51cto.com/u_1472521/3714457)

```
<dependency>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-actuator</artifactId>
</dependency>
<dependency>
  <groupId>io.micrometer</groupId>
  <artifactId>micrometer-registry-prometheus</artifactId>
</dependency>
```

<http://192.168.200.138:8070/actuator/prometheus>

grafana 模板 4701

