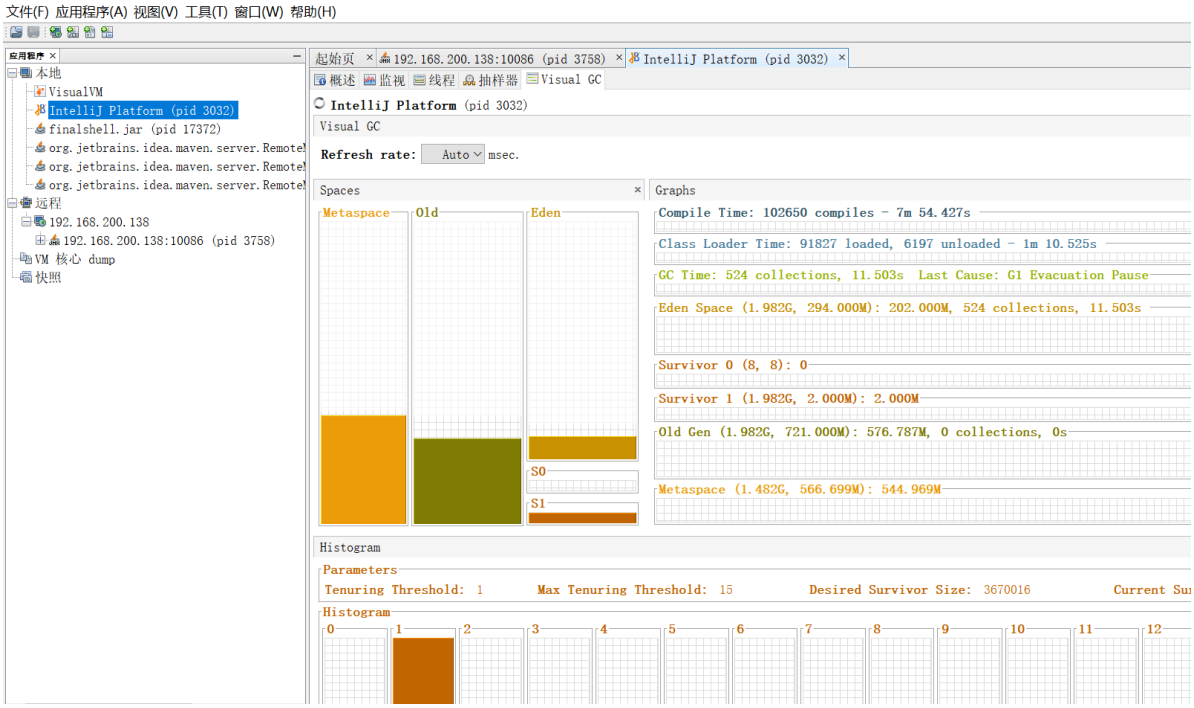
java程序监控分析

1 jvisualvm/jconsol



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

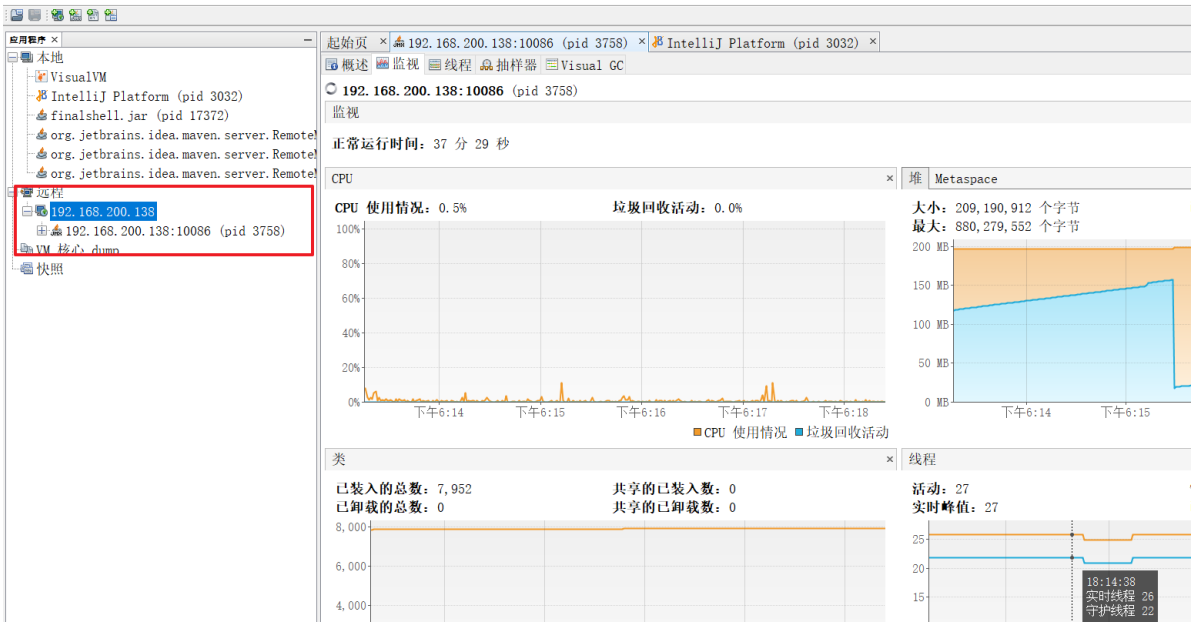
案例2 oom 内存溢出案例

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

http://localhost:8070/user/testMemory

2 线上监控

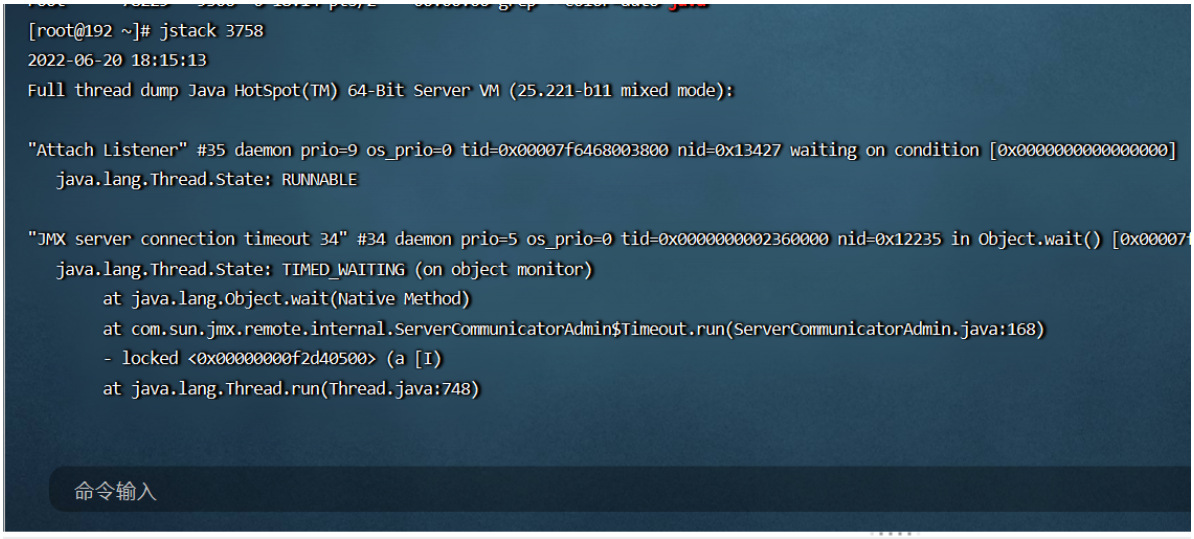
```
java -Djava.rmi.server.hostname=192.168.200.138 -
Dcom.sun.management.jmxremote.port=10086 \
-Dcom.sun.management.jmxremote.ssl=false -
Dcom.sun.management.jmxremote.authenticate=false  \
-jar ytao-springboot-demo.jar
```



http://192.168.200.138:8070/user/testlock

http://192.168.200.138:8070/user/testMemory

3 命令行监控



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

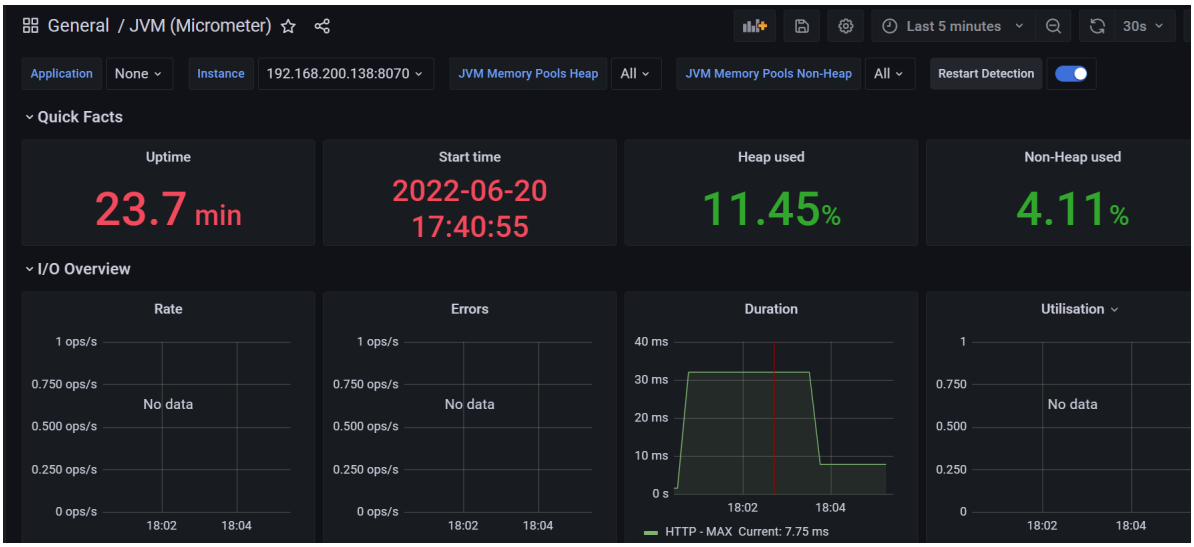
```
[INFO] File size: 11.44 MB, downloaded size: 10.81 MB, downloading ...
[INFO] File size: 11.44 MB, downloaded size: 10.93 MB, downloading ...
[INFO] File size: 11.44 MB, downloaded size: 11.17 MB, downloading ...
[INFO] File size: 11.44 MB, downloaded size: 11.34 MB, downloading ...
[INFO] Download 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
  ,---.  ,------. ,--------.,--.  ,--.  ,---.   ,---.
 /  O  \ |  .--. ''--.  .--'|  '--'  | /  O  \ '   .-'
|  .-.  ||  '--'.'    |  |   |  .--.  ||  .-.  |`.  `-.
|  | |  ||  |\  \     |  |   |  |  |  ||  | |  |.-'    |
`--' `--'`--' '--'    `--'   `--'  `--'`--' `--'`-----'

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

```
        <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