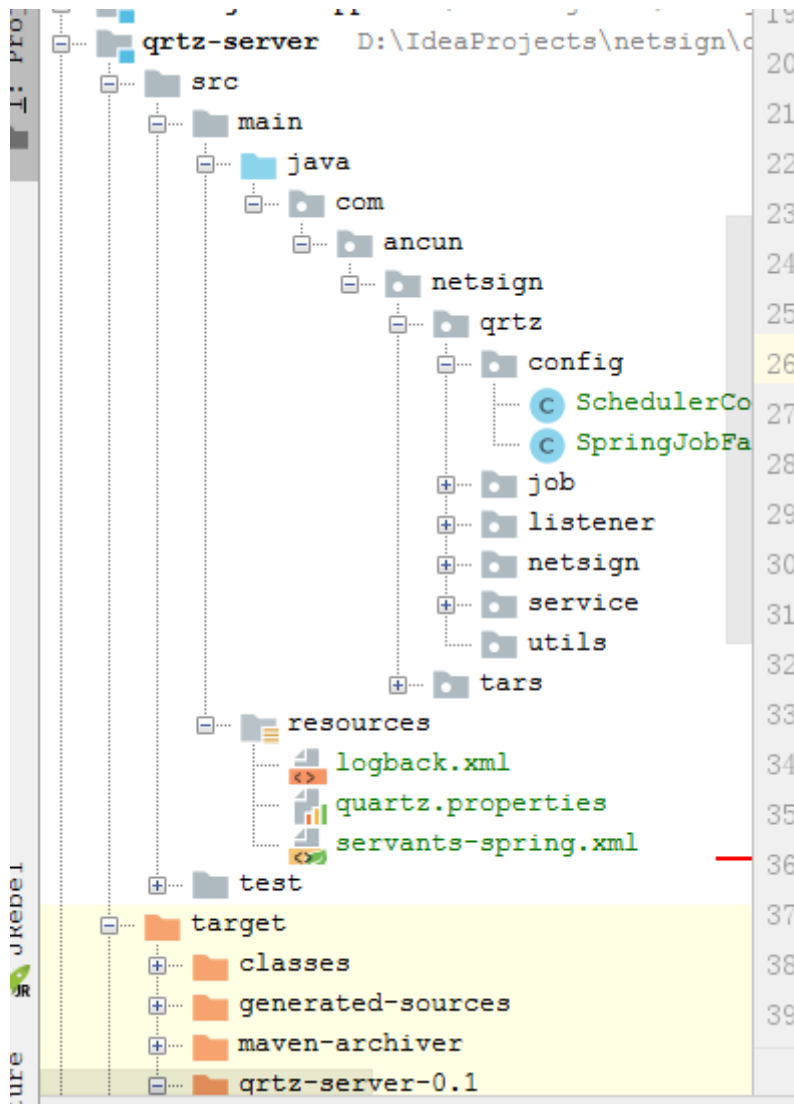


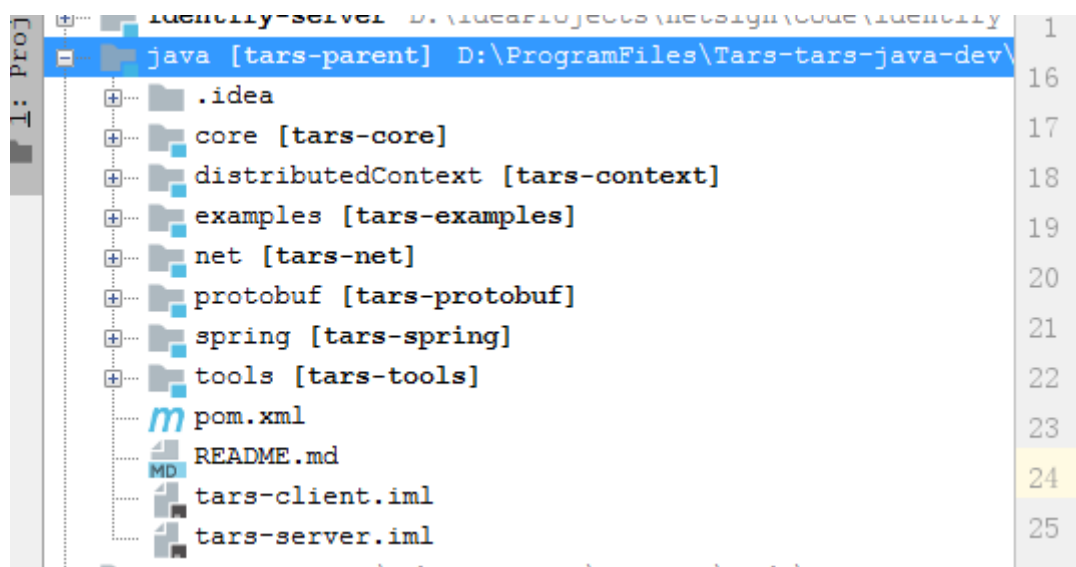
tars 服务端的本地调试

一、准备工作

首先需要有一个tars服务项目，比如我的：

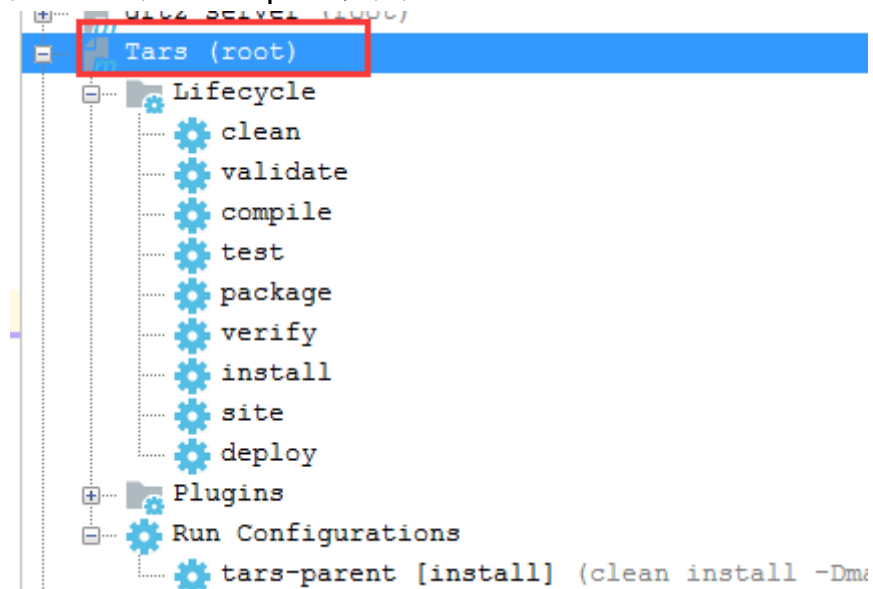


其次需要把tars源码装载到本地，比如我的是：

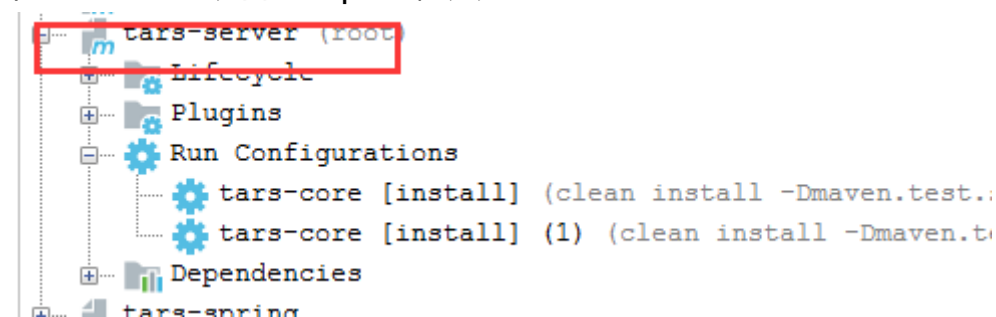


当在tars源码的处理是：

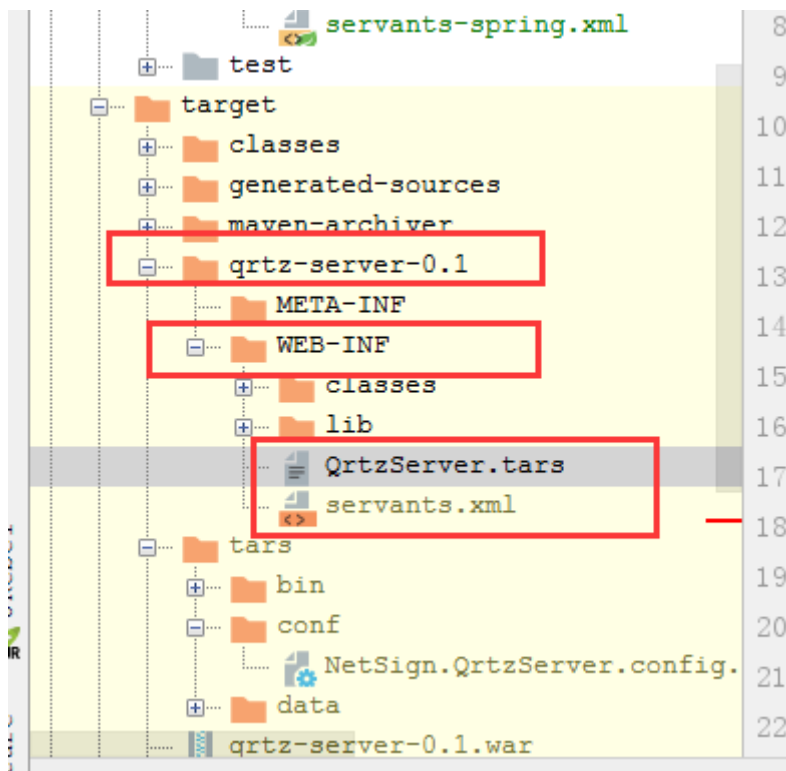
先tars根项目reimport，以及install。



再tars-server项目reimport，以及install：



其实在项目就是先大环境再里面的小的：



quartz-server-0.1是install项目得到的目录

QrtzServer.tars(我的好像可以忽略) , servants.xml是需要放进去的文件 :

QrtzServer.tars文件如下 :

```
1 module NetSign
2 {
3     interface QrtzServer
4     {
5
6         /**
7          * 添加任务
8          * @param quartzDto
9          * @param quartzStr
10         * @param msg
11         * @return
12         */
13         int addSchedule(String quartzDto, out string quartzStr, out string msg);
14
15         /**
16          * 获取任务列表
17          * @param quartzDto
18          * @param quartzStr
19          * @param msg
20          * @return
```

```
21  */
22  int getScheduleList(String quartzDto, out string quartzStr, out string
msg);
23
24  /**
25   * 运行任务
26   * @param quartzDto
27   * @param quartzStr
28   * @param msg
29   * @return
30   */
31  int doSchedule(String quartzDto, out string quartzStr, out string msg);
32
33  /**
34   * 暂停任务
35   * @param quartzDto
36   * @param quartzStr
37   * @param msg
38   * @return
39   */
40  int pauseSchedule(String quartzDto, out string quartzStr, out string ms
g);
41
42  /**
43   * 从暂停中恢复任务运行
44   * @param quartzDto
45   * @param quartzStr
46   * @param msg
47   * @return
48   */
49  int recoverSchedule(String quartzDto, out string quartzStr, out string
msg);
50
51  /**
52   * 删除任务
53   * @param quartzDto
54   * @param quartzStr
55   * @param msg
56   * @return
57   */
58  int deleteSchedule(String quartzDto, out string quartzStr, out string m
sg);
```

```
59     };  
60     };
```

servant.xml文件如下：

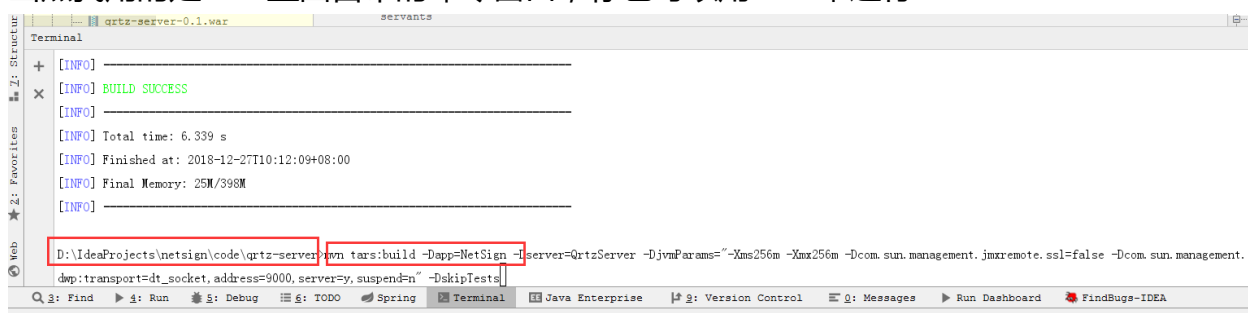
```
1  <?xml version="1.0" encoding="UTF-8"?>  
2  <servants>  
3    <servant name="QrtzServerObj">  
4      <home-api>com.ancun.netsign.qrtz.netsign.QrtzServerServant</home-api>  
5      <home-class>com.ancun.netsign.qrtz.netsign.impl.QrtzServerServantImpl</home-class>  
6    </servant>  
7    <listener>  
8      <listener-class>com.ancun.netsign.qrtz.listener.QrtzServerListener</listener-class>  
9    </listener>  
10 </servants>
```

到项目根目录下运行：

```
1 mvn tars:build -Dapp=NetSign -Dserver=QrtzServer -DjvmParams="-Xms256m -Xmx256m -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.authenticate=false -Xdebug -Xrunj  
2   dp:transport=dt_socket,address=9000,server=y,suspend=n" -DskipTests
```

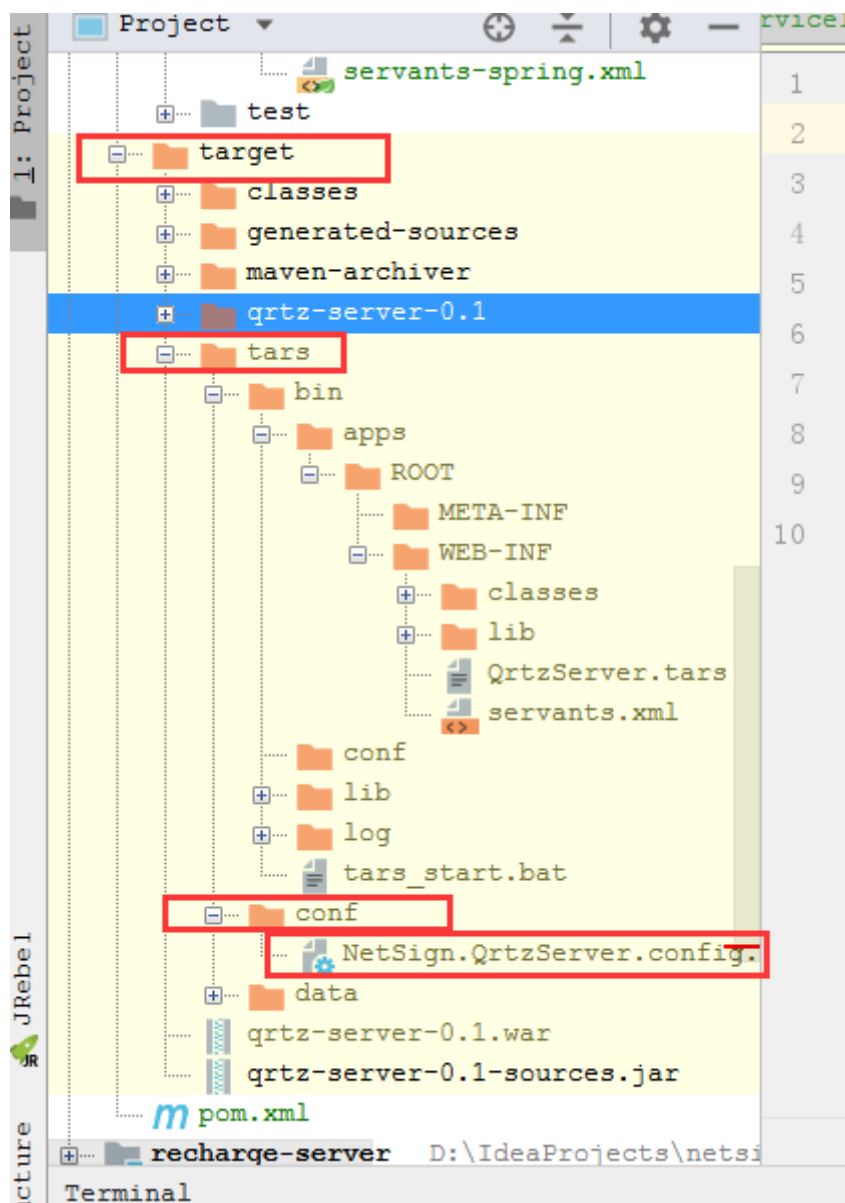
-Dapp=NetSign -Dserver=QrtzServer 就是QrtzServer.tars里面的module NetSign interface QrtzServer

当然我用的是idea里面自带的命令窗口，你也可以用cmd来运行：



4、添加配置

需要修改conf下的NetSign.QrtzServer.config.conf文件



修改后的NetSign.QrtzServer.config.conf文件如下：标红的是需要注意修改的地方

```
1 <tars>
2 <application>
3   enableset=N
4   setdivision=NULL
5 <client>
6   locator=tars.tarsregistry.QueryObj@tcp -h 192.168.0.36 -p 17890
7   sync-invoke-timeout=20000
8   async-invoke-timeout=20000
9   refresh-endpoint-interval=60000
10  stat=tars.tarsstat.StatObj
11  property=tars.tarsproperty.PropertyObj
12  report-interval=60000
13  modulename=NetSign.QrtzServer
```

```
14  </client>
15  <server>
16  node=tars.tarsnode.ServerObj@tcp -h 192.168.0.36 -p 19386 -t 60000
17  app=NetSign
18  server=QrtzServer
19  localip=192.168.0.36
20  local=tcp -h 127.0.0.1 -p 18015 -t 3000
21  basepath=D:\IdeaProjects\netsign\code\qrtz-server\target\tars\bin
22  datapath=D:\IdeaProjects\netsign\code\qrtz-server\target\tars\data
23  logpath=D:\IdeaProjects\netsign\code\qrtz-server\target\tars\bin\log
24  loglevel=DEBUG
25  logsize=15M
26  log=tars.tarslog.LogObj
27  config=tars.tarsconfig.ConfigObj
28  notify=tars.tarsnotify.NotifyObj
29  mainclass=com.qq.tars.server.startup.Main
30  jvmparams=-Xms256m -Xmx256m -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.authenticate=false -Xdebug -Xrunjdwp:transport=dt_socket,address=9000,server=y,suspend=n
31  sessiontimeout=120000
32  sessioncheckinterval=60000
33  tcpnodelay=true
34  udpbuffersize=8192
35  charsetname=UTF-8
36  <NetSign.QrtzServer.QetzServerObjAdapter>
37  allow
38  endpoint=tcp -h 192.168.0.36 -p 18015 -t 60000
39  handlegroup=NetSign.QrtzServer.QetzServerObjAdapter
40  maxconns=200000
41  protocol=tars
42  queuecap=10000
43  queuetimeout=60000
```



```

44  servant=NetSign.QrtzServer.QetzServerObj
45  shmcap=0
46  shmkey=0
47  threads=5
48  </NetSign.QrtzServer.QetzServerObjAdapter>
49  </server>
50  </application>
51  </tars>

```

qtz-server > target > tars > conf > NetSign.QrtzServer.config.conf >

JobServiceImpl.java x quartz.properties x NetSign.QrtzServer.config.conf x QrtzServer.tars

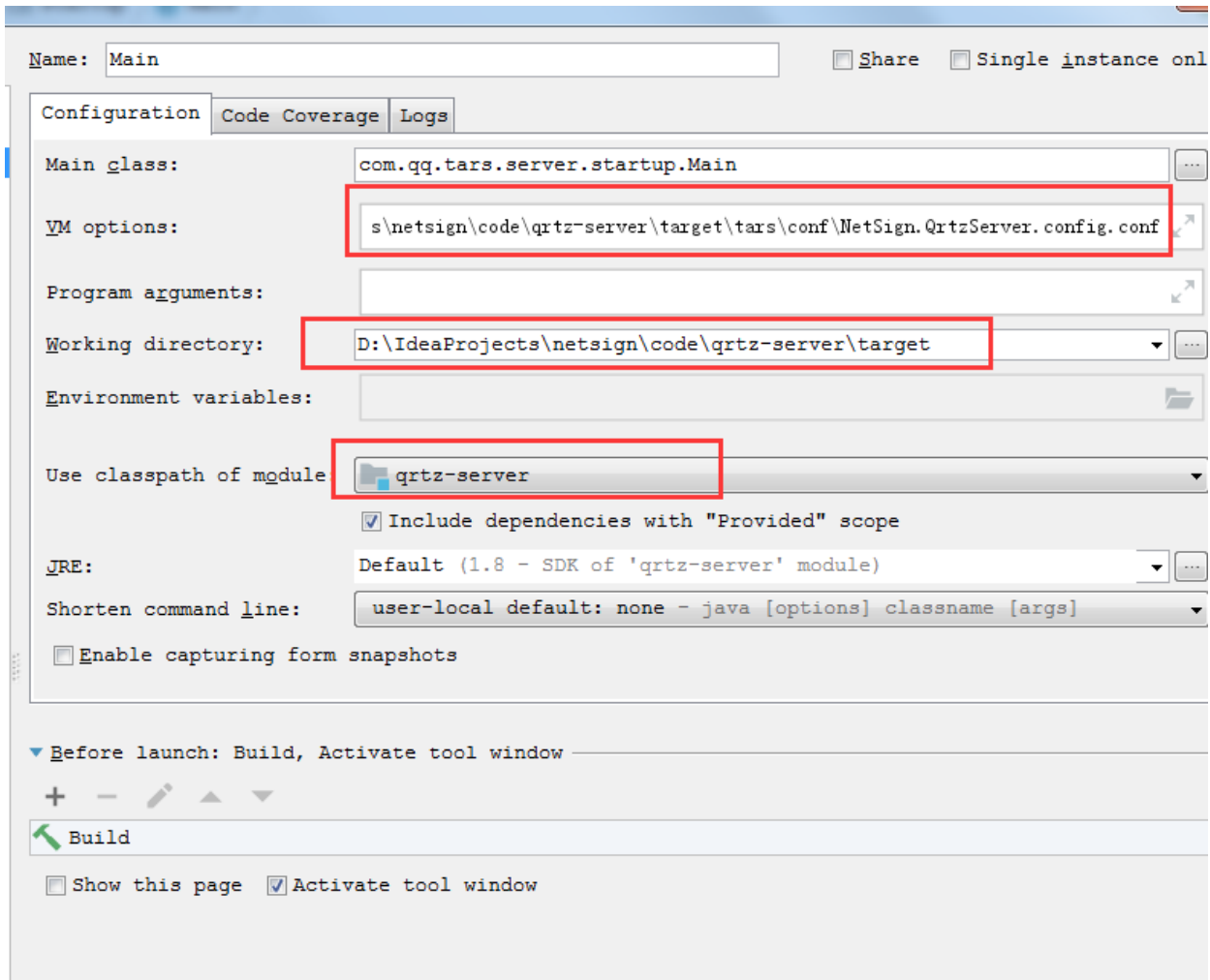
```

1  <tars>
2  <application>
3  enableset=N
4  setdivision=NULL
5  <client>
6  locator=tars.tarsregistry.QueryObj@tcp -h 192.168.0.36 -p 17890
7  sync-invoke-timeout=20000
8  async-invoke-timeout=20000
9  refresh-endpoint-interval=60000
10 stat=tars.tarsstat.StatObj
11 property=tars.tarsproperty.PropertyObj
12 report-interval=60000
13 modulename=NetSign.QrtzServer
14 </client>
15 <server>
16 node=tars.tarsnode.ServerObj@tcp -h 192.168.0.36 -p 19386 -t 60000
17 app=NetSign
18 server=QrtzServer
19 localip=192.168.0.36
20 local=tcp -h 127.0.0.1 -p 18015 -t 3000
21 basepath=D:\IdeaProjects\netsign\code\qrtz-server\target\tars\bin
22 datapath=D:\IdeaProjects\netsign\code\qrtz-server\target\tars\data
23 logpath=D:\IdeaProjects\netsign\code\qrtz-server\target\tars\bin\log
24 loglevel=DEBUG
25 logsize=15M
26 log=tars.tarslog.LogObj
27 config=tars.tarsconfig.ConfigObj
28 notify=tars.tarsnotify.NotifyObj
29 mainclass=com.qq.tars.server.startup.Main
30 jvmparams=-Xms256m -Xmx256m -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.port=12000
31 sessiontimeout=120000
32 sessioncheckinterval=60000
33 tcpnodelay=true
34 udpbuffersize=8192

```

```
tcpnodelay=true
udpbuffersize=8192
charsetname=UTF-8
<NetSign.QrtzServer.QetzServerObjAdapter>~
allow~
endpoint=tcp -h 192.168.0.36 -p 18015 -t 60000
handlegroup=NetSign.QrtzServer.QetzServerObjAdapter
maxconns=200000
protocol=tars
queuecap=10000
queuetimeout=60000
servant=NetSign.QrtzServer.QetzServerObj
shmcap=0
shmkey=0
threads=5
</NetSign.QrtzServer.QetzServerObjAdapter>~
</server>~
</application>~
</tars>~
```

三、运行Main进行调试



通过idea Application启动

Main class: com.qq.tars.server.startup.Main

Vm options; -Xms256m -Xmx256m -Dcom.sun.management.jmxremote.ssl=false -

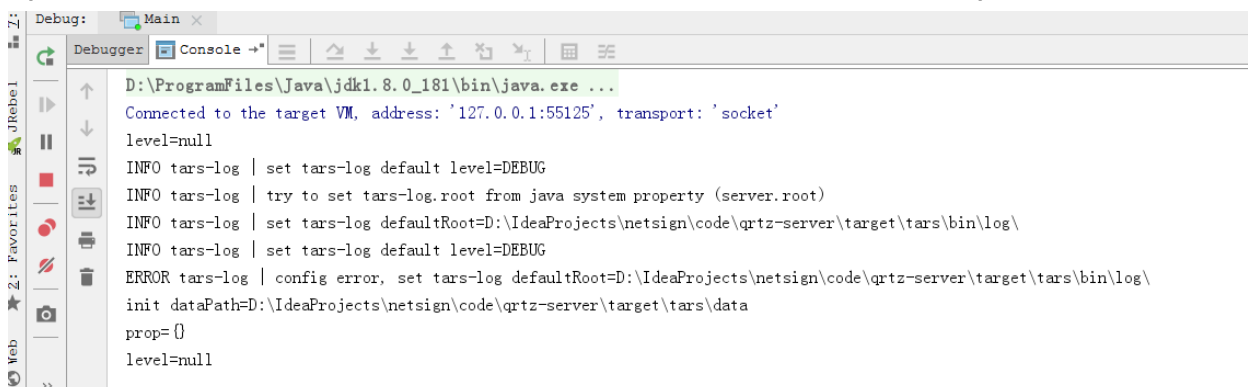
Dcom.sun.management.jmxremote.authenticate=false -

Dconfig=D:\IdeaProjects\netsign\code\qrtz-server\target\tars\conf\NetSign.QrtzServer.config.conf

Working directory: D:\IdeaProjects\netsign\code\qrtz-server\target

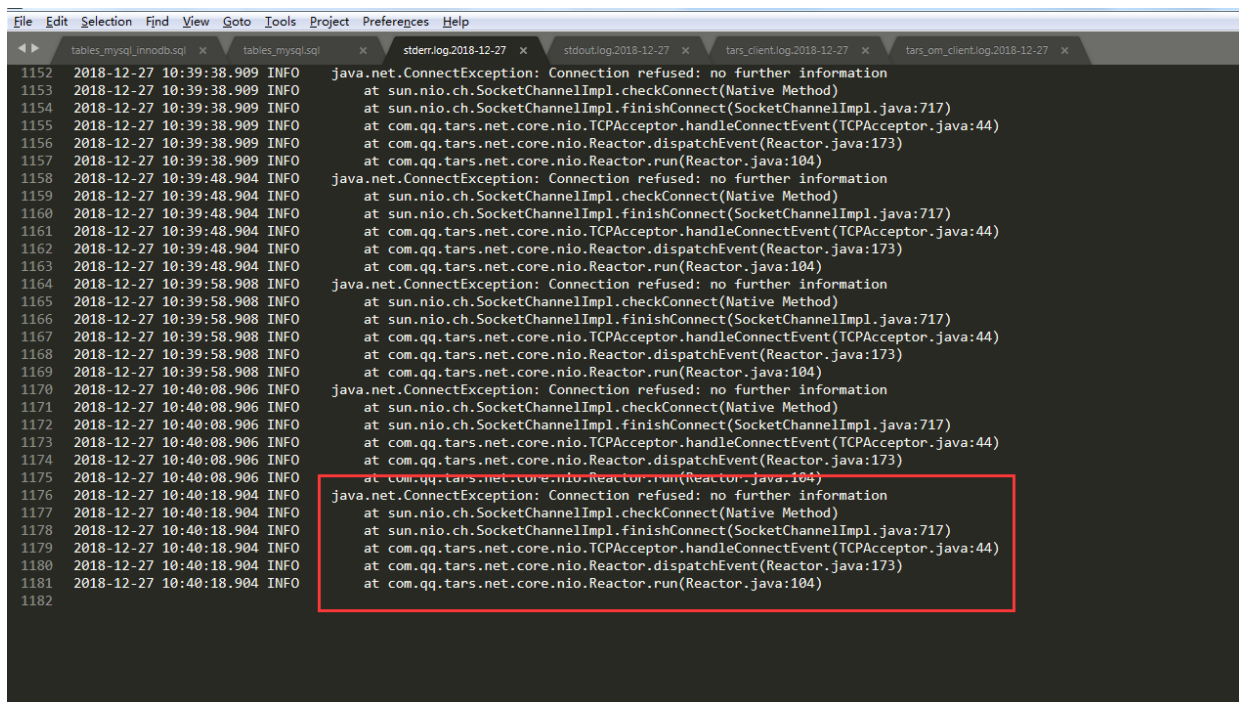
Use classpath of module: qrtz-server

(不知道是什么原因，虽然我启动成功了但是还是连接不上)



```
e Edit Selection Find View Goto Tools Project Preferences Help
tables_mysql_innodb.sql x tables_mysql.sql x stderr.log.2018-12-27 x stdout.log.2018-12-27 x tars_client.log.2018-12-27 x tars_om_client.log.2018-12-27 x
407 Caused by: com.qq.tars.rpc.exc.NotConnectedException: connect failed to 192.168.0.36:19386
408   at com.qq.tars.client.rpc.ServantClient.reConnect(ServantClient.java:115)
409   at com.qq.tars.client.rpc.ServantClient.ensureConnected(ServantClient.java:124)
410   at com.qq.tars.client.rpc.ServantClient.invokeWithAsync(ServantClient.java:164)
411   ... 17 more
412 2018-12-27 10:39:28.903 ERROR   NodeHelper|keepAlive|error
413 com.qq.tars.rpc.exc.ClientException: tars.tarsnode.ServerObj|error occurred on invoker with async
414   at com.qq.tars.client.ObjectProxy.invoke(ObjectProxy.java:103)
415   at com.sun.proxy.$Proxy7.async_keepAlive(Unknown Source)
416   at com.qq.tars.support.node.NodeHelper.keepAlive(NodeHelper.java:57)
417   at com.qq.tars.support.om.ScheduledServiceMgr$NodeHandleThread.run(ScheduledServiceMgr.java:72)
418   at java.lang.Thread.run(Thread.java:748)
419   at java.util.concurrent.Executors$RunnableAdapter.call(Executors.java:511)
420   at java.util.concurrent.FutureTask.runAndReset$$$capture(FutureTask.java:308)
421   at java.util.concurrent.FutureTask.runAndReset(FutureTask.java)
422   at java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor.java:180)
423   at java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.run(ScheduledThreadPoolExecutor.java:294)
424   at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
425   at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
426   at java.lang.Thread.run(Thread.java:748)
427 Caused by: java.io.IOException: error occurred on invoker with async
428   at com.qq.tars.client.rpc.ServantClient.invokeWithAsync(ServantClient.java:174)
429   at com.qq.tars.client.rpc.tars.TarsInvoker.invokeWithAsync(TarsInvoker.java:157)
430   at com.qq.tars.client.rpc.tars.TarsInvoker.doInvokeServant(TarsInvoker.java:60)
431   at com.qq.tars.client.rpc.ServantInvoker.doInvoke(ServantInvoker.java:44)
432   at com.qq.tars.rpc.common.support.AbstractInvoker.invoke(AbstractInvoker.java:75)
433   at com.qq.tars.client.ObjectProxy.invoke(ObjectProxy.java:95)
434   ... 12 more
435 Caused by: com.qq.tars.rpc.exc.NotConnectedException: connect failed to 192.168.0.36:19386
436   at com.qq.tars.client.rpc.ServantClient.reConnect(ServantClient.java:115)
437   at com.qq.tars.client.rpc.ServantClient.ensureConnected(ServantClient.java:124)
438   at com.qq.tars.client.rpc.ServantClient.invokeWithAsync(ServantClient.java:164)
439   ... 17 more
440
```

```
D:\IdeaProjects\netsign\code\qrtz-server\target\tars\bin\log\tars_client.log.2018-12-27 - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help
tables_mysql_innodb.sql x tables_mysql.sql x stderr.log.2018-12-27 x stdout.log.2018-12-27 x tars_client.log.2018-12-27 x tars_om_client.log.2018-12-27 x
8098   at com.qq.tars.client.ObjectProxyFactory.getObjectProxy(ObjectProxyFactory.java:53)
8099   at com.qq.tars.client.ServantProxyFactory.getServantProxy(ServantProxyFactory.java:46)
8100   at com.qq.tars.client.Communicator.stringIoProxy(Communicator.java:73)
8101   at com.qq.tars.client.Communicator.stringIoProxy(Communicator.java:56)
8102   at com.qq.tars.support.stat.StatHelper.getPrx(StatHelper.java:44)
8103   at com.qq.tars.support.stat.StatHelper.report(StatHelper.java:50)
8104   at com.qq.tars.client.ObjectProxy$ServantStatReproter.run(ObjectProxy.java:192)
8105   at java.util.concurrent.Executors$RunnableAdapter.call(Executors.java:511)
8106   at java.util.concurrent.FutureTask.runAndReset$$$capture(FutureTask.java:308)
8107   at java.util.concurrent.FutureTask.runAndReset(FutureTask.java)
8108   at java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor.java:180)
8109   at java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.run(ScheduledThreadPoolExecutor.java:294)
8110   at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
8111   at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
8112   at java.lang.Thread.run(Thread.java:748)
8113 2018-12-27 10:39:44.875 ERROR   report stat worker error|tars.tarsnode.ServerObj
8114 com.qq.tars.rpc.exc.NoConnectionException: tars.tarsregistry.QueryObj|tars.tarsregistry.QueryObj try to select active invoker, size=1, no such active connection invoker
8115   at com.qq.tars.client.ObjectProxy.invoke(ObjectProxy.java:101)
8116   at com.sun.proxy.$Proxy38.findObjectByIdInSomeGroup(Unknown Source)
8117   at com.qq.tars.support.query.QueryHelper.getServerNodes(QueryHelper.java:57)
8118   at com.qq.tars.client.ObjectProxyFactory.updateServantEndpoints(ObjectProxyFactory.java:123)
8119   at com.qq.tars.client.ObjectProxyFactory.getObjectProxy(ObjectProxyFactory.java:53)
8120   at com.qq.tars.client.ServantProxyFactory.getServantProxy(ServantProxyFactory.java:46)
8121   at com.qq.tars.client.Communicator.stringIoProxy(Communicator.java:73)
8122   at com.qq.tars.client.Communicator.stringIoProxy(Communicator.java:56)
8123   at com.qq.tars.support.stat.StatHelper.getPrx(StatHelper.java:44)
8124   at com.qq.tars.support.stat.StatHelper.report(StatHelper.java:50)
8125   at com.qq.tars.client.ObjectProxy$ServantStatReproter.run(ObjectProxy.java:192)
8126   at java.util.concurrent.Executors$RunnableAdapter.call(Executors.java:511)
8127   at java.util.concurrent.FutureTask.runAndReset$$$capture(FutureTask.java:308)
8128   at java.util.concurrent.FutureTask.runAndReset(FutureTask.java)
8129   at java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.access$301(ScheduledThreadPoolExecutor.java:180)
8130   at java.util.concurrent.ScheduledThreadPoolExecutor$ScheduledFutureTask.run(ScheduledThreadPoolExecutor.java:294)
8131   at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
8132   at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
8133   at java.lang.Thread.run(Thread.java:748)
8134 Caused by: com.qq.tars.rpc.common.exc.NoInvokerException: tars.tarsregistry.QueryObj try to select active invoker, size=1, no such active connection invoker
8135   at com.qq.tars.client.rpc.loadbalance.RoundRobinLoadBalance.select(RoundRobinLoadBalance.java:93)
8136   at com.qq.tars.client.rpc.loadbalance.DefaultLoadBalance.select(DefaultLoadBalance.java:78)
8137   at com.qq.tars.client.ObjectProxy.invoke(ObjectProxy.java:94)
8138   ... 18 more
8139 2018-12-27 10:39:44.875 INFO    ServantStatReproter run(), use: 0
8140
```



```
File Edit Selection Find View Goto Tools Project Preferences Help
tables_mysql_innodb.sql x tables_mysql.sql x stderr.log.2018-12-27 x stdout.log.2018-12-27 x tars_client.log.2018-12-27 x tars_om_client.log.2018-12-27 x
1152 2018-12-27 10:39:38.909 INFO java.net.ConnectException: Connection refused: no further information
1153 2018-12-27 10:39:38.909 INFO at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
1154 2018-12-27 10:39:38.909 INFO at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:717)
1155 2018-12-27 10:39:38.909 INFO at com.qq.tars.net.core.nio.TCPAcceptor.handleConnectEvent(TCPAcceptor.java:44)
1156 2018-12-27 10:39:38.909 INFO at com.qq.tars.net.core.nio.Reactor.dispatchEvent(Reactor.java:173)
1157 2018-12-27 10:39:38.909 INFO at com.qq.tars.net.core.nio.Reactor.run(Reactor.java:104)
1158 2018-12-27 10:39:48.904 INFO java.net.ConnectException: Connection refused: no further information
1159 2018-12-27 10:39:48.904 INFO at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
1160 2018-12-27 10:39:48.904 INFO at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:717)
1161 2018-12-27 10:39:48.904 INFO at com.qq.tars.net.core.nio.TCPAcceptor.handleConnectEvent(TCPAcceptor.java:44)
1162 2018-12-27 10:39:48.904 INFO at com.qq.tars.net.core.nio.Reactor.dispatchEvent(Reactor.java:173)
1163 2018-12-27 10:39:48.904 INFO at com.qq.tars.net.core.nio.Reactor.run(Reactor.java:104)
1164 2018-12-27 10:39:58.908 INFO java.net.ConnectException: Connection refused: no further information
1165 2018-12-27 10:39:58.908 INFO at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
1166 2018-12-27 10:39:58.908 INFO at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:717)
1167 2018-12-27 10:39:58.908 INFO at com.qq.tars.net.core.nio.TCPAcceptor.handleConnectEvent(TCPAcceptor.java:44)
1168 2018-12-27 10:39:58.908 INFO at com.qq.tars.net.core.nio.Reactor.dispatchEvent(Reactor.java:173)
1169 2018-12-27 10:39:58.908 INFO at com.qq.tars.net.core.nio.Reactor.run(Reactor.java:104)
1170 2018-12-27 10:40:08.906 INFO java.net.ConnectException: Connection refused: no further information
1171 2018-12-27 10:40:08.906 INFO at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
1172 2018-12-27 10:40:08.906 INFO at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:717)
1173 2018-12-27 10:40:08.906 INFO at com.qq.tars.net.core.nio.TCPAcceptor.handleConnectEvent(TCPAcceptor.java:44)
1174 2018-12-27 10:40:08.906 INFO at com.qq.tars.net.core.nio.Reactor.dispatchEvent(Reactor.java:173)
1175 2018-12-27 10:40:08.906 INFO at com.qq.tars.net.core.nio.Reactor.run(Reactor.java:104)
1176 2018-12-27 10:40:18.904 INFO java.net.ConnectException: Connection refused: no further information
1177 2018-12-27 10:40:18.904 INFO at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)
1178 2018-12-27 10:40:18.904 INFO at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:717)
1179 2018-12-27 10:40:18.904 INFO at com.qq.tars.net.core.nio.TCPAcceptor.handleConnectEvent(TCPAcceptor.java:44)
1180 2018-12-27 10:40:18.904 INFO at com.qq.tars.net.core.nio.Reactor.dispatchEvent(Reactor.java:173)
1181 2018-12-27 10:40:18.904 INFO at com.qq.tars.net.core.nio.Reactor.run(Reactor.java:104)
1182
```

接下来，继续处理这个问题：应该是数据源获取不到的原因吧

附加：

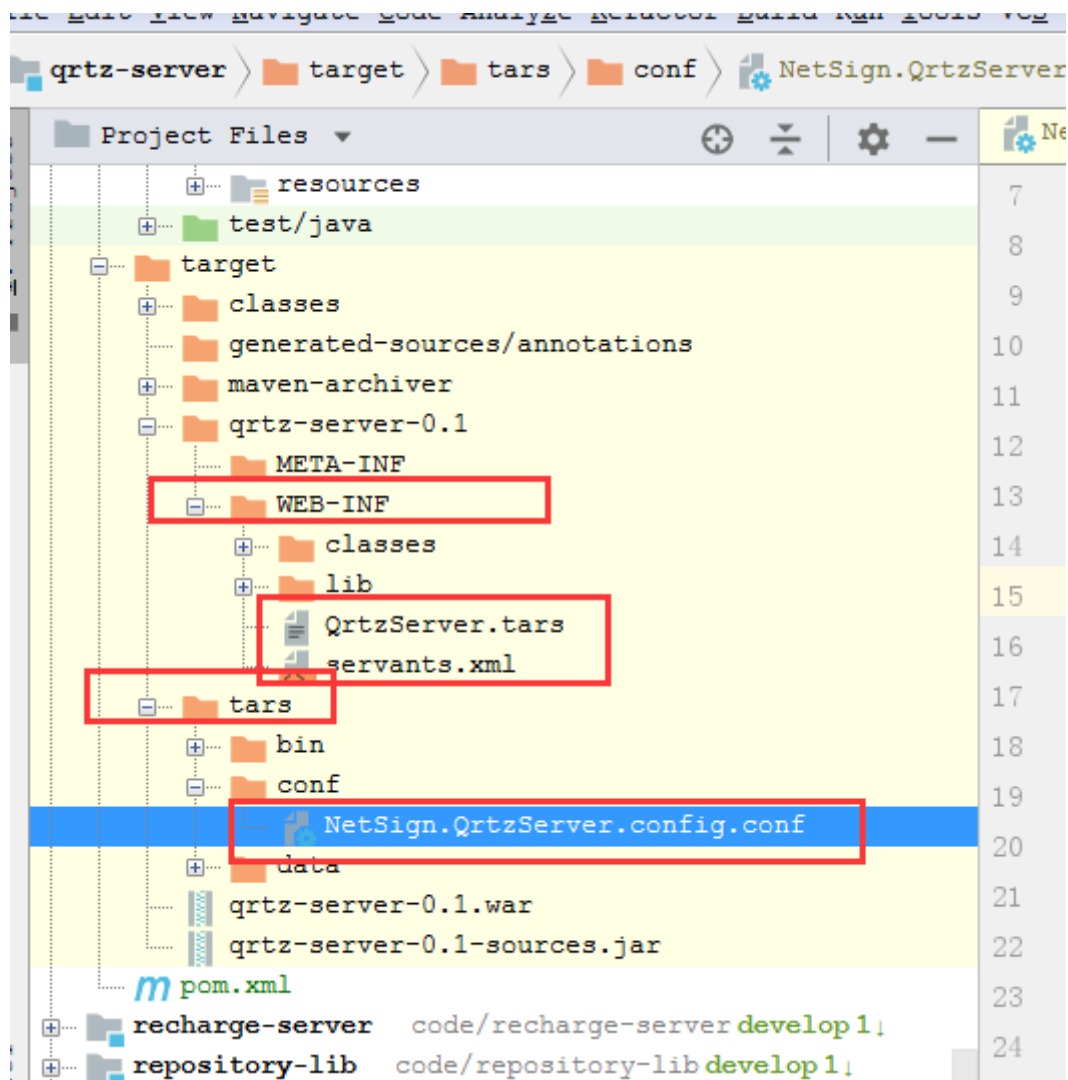
1、由于我设置的tars服务平台地址有问题，所以启动的时候一直报连接不上的问题，只要重新修改tarsconf的配置就好了，重新配置的代码如下：

```
1 <application>
2 <qz>
3 refreshJobTime=5
4 </qz>
5 <db>
6 driverClass = com.mysql.jdbc.Driver
7 jdbcUrl = jdbc:mysql://192.168.0.93:3306/ancun_netsign_new?useUnicode=true&characterEncoding=UTF-8&autoReconnect=true&failOverReadOnly=false&useSSL=false
8 user = root
9 password = 123456
10 maxPoolSize = 100
11 minIdle = 3
12 maxLifetime = 60000
13 connectivityCheckTimeoutMs = 1000
```

```
14  expected99thPercentileMs = 10
15  </db>
16  </application>
17  <tars>
18    <application>
19      enableset = N
20      setdivision = NULL
21    <client>
22      locator = tars.tarsregistry.QueryObj@tcp -h 192.168.0.239 -p 17890
23      sync-invoke-timeout = 20000
24      async-invoke-timeout = 20000
25      refresh-endpoint-interval = 60000
26      stat = tars.tarsstat.StatObj
27      property = tars.tarsproperty.PropertyObj
28      report-interval = 60000
29      modulename = NetSign.QrtzServer
30    </client>
31    <server>
32      node = tars.tarsnode.ServerObj@tcp -h 192.168.0.239 -p 19386 -t 60000
33      app = NetSign
34      server = QrtzServer
35      localip = 192.168.0.36
36      local = tcp -h 127.0.0.1 -p 18015 -t 3000
37      basepath = D:\IdeaProjects\netsign\code\qrtz-server\target\tars\bin
38      datapath = D:\IdeaProjects\netsign\code\qrtz-server\target\tars\data
39      logpath = D:\qrtz-server\\log
40      loglevel = DEBUG
41      logsize = 15M
42      log = tars.tarslog.LogObj
43      config = tars.tarsconfig.ConfigObj
44      notify = tars.tarsnotify.NotifyObj
45      mainclass = com.qq.tars.server.startup.Main
```

```
46  jvmparams = -Xms256m -Xmx256m -Dcom.sun.management.jmxremote.s
sl=false -Dcom.sun.management.jmxremote.authenticate=false -Xdebug
-Xrunjdwp:transport=dt_socket, address = 9000, server = y, suspend
= n
47  sessiontimeout = 120000
48  sessioncheckinterval = 60000
49  tcpnodelay = true
50  udpbuffersize = 8192
51  charsetname = UTF-8
52  <NetSign.QrtzServer.QrtzServerObjAdapter>
53  allow
54  endpoint = tcp -h 192.168.0.36 -p 18015 -t 60000
55  handlegroup = NetSign.QrtzServer.QrtzServerObjAdapter
56  maxconns = 200000
57  protocol = tars
58  queuecap = 10000
59  queuetimeout = 60000
60  servant = NetSign.QrtzServer.QrtzServerObj
61  shmcap = 0
62  shmkey = 0
63  threads = 5
64  </NetSign.QrtzServer.QrtzServerObjAdapter>
65  </server>
66  </application>
67  </tars>
```

2、在运行的时候添加上配置文件，一定要添加到编译后的地方
如图：



3、由于未知原因导致自动注入不了bean（需要继续研究），所以我这边直接使用springUtils来获取容器里面的bean了。

```
public JobService getJobService() {  
    if(null == jobService){  
        return SpringUtils.getBean(JobService.class);  
    }  
    return jobService;  
}
```

参考资料：

https://tars.tencent.com/base/help/TARS_quick_start_Java.html

<https://wenku.baidu.com/view/77bfc3ffb04e852458fb770bf78a6529647d35c8.html>

<http://www.quartz-scheduler.org/>

<https://github.com/quartz-scheduler/quartz>