

Logging SQL queries in Grouper

Wiki Home	Grouper Release Announcements	Grouper Guides	Grouper Deployment Guide	Community Contributions	Internal Developer Resources
---------------------------	---	--------------------------------	--	---	--

Note this technique is intended to be temporary to troubleshoot, do not leave this on in production or it will be a performance hindrance.

This example shows the query and results from this query in a loader job from the GTE container from mysql. This ends in a null to see it fail and see the results in a log

```
SELECT
    subject_id,
    the_order
FROM
    (
        SELECT
            m.subject_id AS subject_id, 1 AS the_order
        FROM
            grouper_members m
        WHERE
            m.subject_id LIKE 'ab%'
        UNION
        SELECT
            NULL AS subject_id, 2 AS the_order
        FROM
            grouper_members) AS the_subquery
ORDER BY
    2
```

Here is the log message (note this message is improved in v2.5.36+)

```
java.lang.RuntimeException: Result has a null subject_id, please correct the query (maybe just filter where
subject_id is not null)
```

A custom p6spy jar is the best way to log SQL queries in Grouper. Note [get this from 2.3 branch](#) even if you are in a newer Grouper. This jar is customized to work with Grouper and the stock p6spy jar will not work.

```
[student@ip-172-31-14-57 ~]$ docker exec -it -u tomcat 401.2.1 bash
[tomcat@b9f6012bfa3b WEB-INF]$ cd lib
[tomcat@b9f6012bfa3b lib]$ pwd
/opt/grouper/grouperWebapp/WEB-INF/lib
[tomcat@b9f6012bfa3b lib]$ wget https://github.com/Internet2/grouper/raw/GROUPER_2_3_BRANCH/grouper/lib/grouper
/p6spy.jar
```

Make a config file

```
[tomcat@b9f6012bfa3b lib]$ cd ..
[tomcat@b9f6012bfa3b WEB-INF]$ cd classes
[tomcat@b9f6012bfa3b classes]$ wget https://github.com/Internet2/grouper/raw/GROUPER_2_3_BRANCH/grouper/conf
/spy.example.properties
[tomcat@b9f6012bfa3b classes]$ mv spy.example.properties spy.properties
[tomcat@b9f6012bfa3b classes]$ vi spy.properties
```

Make sure the real driver, and log path are right. Set executionthreshold (millis) if you only want long running queries. Make sure excludecategories is correct

```
# e.g. mysql:                com.mysql.jdbc.Driver
# e.g. p6spy (log sql): com.p6spy.engine.spy.P6SpyDriver
#   for p6spy, put the underlying driver in spy.properties
# e.g. oracle:                oracle.jdbc.driver.OracleDriver
# e.g. hsqldb:                 org.hsqldb.jdbcDriver
# e.g. postgres:              org.postgresql.Driver
# e.g. SQL Server:            com.microsoft.sqlserver.jdbc.SQLServerDriver
realdriver=com.mysql.jdbc.Driver

logfile=/opt/grouper/logs/grouper/grouperSpy.log

excludecategories=info,debug,resultset,batch,result,commit,rollback

# queries longer then 10 seconds
executionthreshold=10000
```

Register the p6spy driver in grouper.hibernate.properties

```
#   com.p6spy.engine.spy.P6SpyDriver
#   for p6spy, put the underlying driver in spy.properties
# e.g. oracle:                oracle.jdbc.driver.OracleDriver
# e.g. hsqldb:                 org.hsqldb.jdbcDriver
# e.g. postgres:              org.postgresql.Driver
# e.g. mssql:                  com.microsoft.sqlserver.jdbc.SQLServerDriver
hibernate.connection.driver_class = com.p6spy.engine.spy.P6SpyDriver
```

Bounce tomcat (or rebuild and run container)

```
[tomcat@b9f6012bfa3b bin]$ ps -ef | grep tomcat | grep java | grep -v grep
tomcat      86      1  2 Oct16 ?          00:31:51 /usr/lib/jvm/java-1.8.0-amazon-corretto/bin/java -Dnop -Djava.
util.logging.manager=org.apache.logging.log4j.jul.LogManager -javaagent:/opt/tomee/lib/openejb-javaagent.jar -
Djdk.tls.ephemeralDHKeySize=2048 -Djava.protocol.handler.pkgs=org.apache.catalina.webresources -Dorg.apache.
catalina.security.SecurityListener.UMASK=0027 -Xmx1500m -XX:+UseG1GC -XX:+UseStringDeduplication -Dlog4j.
configurationFile=/opt/tomee/conf/log4j2.xml -DENV=training -DUSERTOKEN=gte-401.2.1 -Dfile.encoding=UTF-8 -
Dignore.endorsed.dirs= -classpath /opt/tomee/bin/*:/opt/tomee/bin/bootstrap.jar:/opt/tomee/bin/tomcat-juli.jar -
Dcatalina.base=/opt/tomee -Dcatalina.home=/opt/tomee -Djava.io.tmpdir=/opt/tomee/temp org.apache.catalina.
startup.Bootstrap start
[tomcat@b9f6012bfa3b bin]$ kill -KILL 86
[tomcat@b9f6012bfa3b bin]$ ps -ef | grep tomcat | grep java | grep -v grep
tomcat      666     1 99 18:38 ?          00:00:02 /usr/lib/jvm/java-1.8.0-amazon-corretto/bin/java -Dnop -Djava.
util.logging.manager=org.apache.logging.log4j.jul.LogManager -javaagent:/opt/tomee/lib/openejb-javaagent.jar -
Djdk.tls.ephemeralDHKeySize=2048 -Djava.protocol.handler.pkgs=org.apache.catalina.webresources -Dorg.apache.
catalina.security.SecurityListener.UMASK=0027 -Xmx1500m -XX:+UseG1GC -XX:+UseStringDeduplication -Dlog4j.
configurationFile=/opt/tomee/conf/log4j2.xml -DENV=training -DUSERTOKEN=gte-401.2.1 -Dfile.encoding=UTF-8 -
Dignore.endorsed.dirs= -classpath /opt/tomee/bin/*:/opt/tomee/bin/bootstrap.jar:/opt/tomee/bin/tomcat-juli.jar -
Dcatalina.base=/opt/tomee -Dcatalina.home=/opt/tomee -Djava.io.tmpdir=/opt/tomee/temp org.apache.catalina.
startup.Bootstrap start
[tomcat@b9f6012bfa3b bin]$
```

Then go to /opt/grouper/logs/grouper/grouperSpy.log and search for the query you are looking for:

2021/06/01 18:47:48:591, 75363ms, statement: ByHqlStatic.java.listSet() line 458, Hib3GroupDAO.java.
findAllGroupsSecureHelper() line 3473, Hib3GroupDAO.java.getAllGroupsSecure() line 4108, GroupFinder.java.
findGroups() line 1300, GrouperSourceAdapter.java.callback() line 592, GrouperSession.java.
callbackGrouperSession() line 1000, GrouperSourceAdapter.java.searchHelper() line 556, GrouperSourceAdapter.
java.search() line 718, SubjectCheckConfig.java.checkConfig() line 168, GrouperCheckConfig.java.callback() line
581, GrouperSession.java.callbackGrouperSession() line 1000, GrouperSession.java.
internal_callbackRootGrouperSession() line 1069, GrouperSession.java.internal_callbackRootGrouperSession() line
1036, GrouperCheckConfig.java.checkConfig() line 577, GrouperStartup.java.callback() line 349, GrouperSession.
java.callbackGrouperSession() line 1000, GrouperSession.java.internal_callbackRootGrouperSession() line 1069,
GrouperSession.java.internal_callbackRootGrouperSession() line 1036, GrouperStartup.java.startup() line 296,
GrouperLoader.java.main() line 124, CommonServletContainerInitializer.java.run() line 170
select distinct group0_.id as id1_25_, group0_.hibernate_version_number as hibernat2_25_, group0_.
last_membership_change as last_mem3_25_, group0_.last_imm_membership_change as last_imm4_25_, group0_.
parent_stem as parent_s5_25_, group0_.creator_id as creator_6_25_, group0_.create_time as create_t7_25_,
group0_.modifier_id as modifier8_25_, group0_.modify_time as modify_t9_25_, group0_.name as name10_25_, group0_.
display_name as display11_25_, group0_.extension as extensi12_25_, group0_.display_extension as display13_25_,
group0_.description as descrip14_25_, group0_.context_id as context15_25_, group0_.alternate_name as
alternat16_25_, group0_.type_of_group as type_of17_25_, group0_.id_index as id_inde18_25_, group0_.enabled as
enabled19_25_, group0_.enabled_timestamp as enabled20_25_, group0_.disabled_timestamp as disable21_25_ from
grouper_groups group0_ where (group0_.id='grouperteststringonstartupasdfghj' or lower(group0_.name) like '%
grouperteststringonstartupasdfghj%' or lower(group0_.alternate_name) like '%grouperteststringonstartupasdfghj%'
or lower(group0_.display_name) like '%grouperteststringonstartupasdfghj%' or lower(group0_.description) like '%
grouperteststringonstartupasdfghj%') and (group0_.type_of_group in ('group' , 'role')) order by group0_.
display_name asc