

Neo4j 2.1 working/2.2 broken in Docker with graph.db in shared volume

7 posts by 5 authors  



Jesse Hannah

Apr 18



I had been running Neo4j 2.1.7 in a Docker container (through latest boot2docker, in latest VirtualBox, on latest Mac OS X), with the data/graph.db directory mapped to a directory on the host machine, without any trouble. However, with 2.2.x version I've tried (from 2.2.0-M02 to 2.2.1) with the same configuration has failed to start, with the following error in data/graph.db/messages.log:

```
2015-04-18 05:11:00.989+0000 ERROR [o.n.s.r.RrdFactory]: Unable to create new rrd store
java.io.IOException: Invalid argument
    at sun.nio.ch.FileChannellImpl.map0(Native Method) ~[na:1.8.0_40-internal]
    at sun.nio.ch.FileChannellImpl.map(FileChannellImpl.java:893) ~[na:1.8.0_40-internal]
    at org.rrd4j.core.RrdNioBackend.mapFile(RrdNioBackend.java:63) ~[rrd4j-2.2.jar:na]
    at org.rrd4j.core.RrdNioBackend.setLength(RrdNioBackend.java:86) ~[rrd4j-2.2.jar:na]
    at org.rrd4j.core.RrdDb.<init>(RrdDb.java:148) ~[rrd4j-2.2.jar:na]
    at org.rrd4j.core.RrdDb.<init>(RrdDb.java:101) ~[rrd4j-2.2.jar:na]
    at org.neo4j.server.rrd.RrdFactory.createRrd(RrdFactory.java:200) [neo4j-server-2.2.1.jar:2.2.1]
    at org.neo4j.server.rrd.RrdFactory.createRrdDbAndSampler(RrdFactory.java:95) [neo4j-server-2.2.1.jar:2.2.1]
    at org.neo4j.server.AbstractNeoServer.start(AbstractNeoServer.java:214) [neo4j-server-2.2.1.jar:2.2.1]
    at org.neo4j.server.Bootstrapper.start(Bootstrapper.java:117) [neo4j-server-2.2.1.jar:2.2.1]
    at org.neo4j.server.Bootstrapper.main(Bootstrapper.java:69) [neo4j-server-2.2.1.jar:2.2.1]
```

I've found a StackOverflow question[1] about this same error (except with version 1.9), which points to a VirtualBox bug report, but that I can tell from those threads, the error should have been occurring with version 2.1.7 as well, if it were a bug in VirtualBox and not in Neo4j. The problem does not occur in a Docker container from the same image without mapping data/graph.db to a shared volume. Has anyone else encountered this error, and/or would anyone with more knowledge of the changes made from 2.1.7 to 2.2.0 know what might cause this to be happening now?

—jbh

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[1] <http://stackoverflow.com/questions/18370043/neo4j-server-in-virtualbox-unable-to-create-rrd-store>



Michael Hunger

Apr 18



Which docker image did you use?

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Jesse Hannah



Apr 18

It's one I wrote myself, using java:7 as the base image and downloading the .tar.gz package of Neo4j. This[1] is the 2.1 Dockerfile that works with a shared volume; this[2] is the 2.2 Dockerfile that doesn't.

[1] <https://github.com/thetallgrassnet/neo4j/blob/master/2.1/Dockerfile>

[2] <https://github.com/thetallgrassnet/neo4j/blob/master/2.2/Dockerfile>

(Side note: the problem with the one that seems to be the most popular (tpires) is that it's not tagged for specific versions of Neo4j. Writing these images was partially an experiment in making version-tagged images, which also happened to fit a need I had for a website I'm building, but it may end up being easier to go back to the tpires image.)

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Andrew McCollam

May 5



Does Neo4j supply a docker container image or advocate one that's in the community?

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Enzo

Jun 5



I've got the problem using boot2docker 1.6.2 on OS X.

The docker image is here: <https://github.com/kbastani/docker-neo4j> using neo4j 2.2

It is not possible mounting volumes from host, which is quite a fundamental feature...

Thanks

Enzo

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Kevin Kuhl

Jun 20



Bump, using boot2docker 1.6.2 on OSX and the same container

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Michael Hunger

Jun 20



Looking at the stackoverflow issue it seems that something in virtual box changed that affects memory mapping.

To map RRD to a location within the container helps.

org.neo4j.server.webadmin.rrd.location=/tmp/rrd

I did that for the image I was working on:

<https://registry.hub.docker.com/u/neo4j/neo4j/>

I did two things:

```
RUN sed -i -e "s|org.neo4j.server.webadmin.rrdb.location=.*|org.neo4j.  
server.webadmin.rrdb.location=/tmp/rrd|g" /var/lib/neo4j/conf/neo4j-  
server.properties && \  
touch /tmp/rrd
```
