

Harvest Dockers -- Running, Patching, Debugging

Current Docker docs --

<https://docs.docker.com/get-started/>

Handy Docker Commands (w/ sudo):

Show current Docker instances: `docker container ls`

Remove all containers: `docker rm $(docker ps -aq)`

Get to shell in Docker instance: `docker exec -t -i [container name] /bin/bash`

For each of production and stage; there is:

ssh front

Front is ec2 running apache as reverse proxy plus docker running

<https://github.com/mredar/docker-rq-dashboard/blob/master/Dockerfile>

Key local files:

`/etc/httpd/conf.d/ssl.conf`

^ Rewrite rules for `/rq*` `/solr*` `/couch*`

Commands:

`STAGE $ ssh front "sudo docker container ls"`

`STAGE $ start-rq-dashboard.sh`

^ when service unavailable and no containers running

ssh solr

Solr is ec2 with docker running

https://github.com/ucldc/solr_api/blob/master/Dockerfile

Key local dir:

/opt/solr/data/

Make sure no other dockers are running

```
sudo docker rm solr
sudo docker run -d -p 8983:8983 -v /opt/solr/data:/opt/solr/server/solr/dc-collection/data \
  --name solr ucldc/solr
```

ssh couchdb

Couchdb is ec2 with docker running 1.7.1

docker pull apache/couchdb:1.7.1

Admin username/password set in /usr/local/etc/couchdb/local.ini, which gets copied over to /usr/local/etc/couchdb/local.ini on initial docker run command

- Password hashed in local.ini for security

Key local dir:

/var/lib/couchdb/

We limit log file # and max log file size in the Docker daemon file /etc/docker/daemon.json.

Any changes to this file require a docker restart `sudo service docker restart`

and re-creating any container(s) on the docker service to take effect (see below)

Make sure no other dockers are running

```
sudo docker run -it -d -v /var/lib/couchdb:/usr/local/var/lib/couchdb -v  
/usr/local/etc/couchdb:/usr/local/etc/couchdb -p 5984:5984 --name couchdb apache/couchdb:1.7.1
```

Monthly patching

```
sudo yum update -y --security  
sudo init 6
```

1 Stop Front

To get ID: `ssh front "sudo docker container ls -q"`

To stop: `ssh front "sudo docker stop [ID]"`

2 Apply patches

patch: `ssh front "sudo yum update -y --security"`

reboot: `ssh front "sudo init 6"`

Wait ~3 minutes for full restart sequence

3 Start Front

`ssh front "sudo docker start [ID]"`

4 Repeat with ssh couchdb and ssh solr on both STG and PROD

Stage CouchDB: to save space, you should also compact the `ucldc` and `dashboard` databases during monthly patch updates:

```
curl --user admin:... -X POST -H "Content-Type: application/json"  
"http://10.60.17.134:5984/ucldc/_compact"
```

```
curl --user admin:... -X POST -H "Content-Type: application/json"  
"http://10.60.17.134:5984/dashboard/_compact"
```

You'll need the admin password in place of . . . which you can find in `/usr/local/etc/couchdb/local.ini`

Prod CouchDB: may have to stop another auto-started Docker container after reboot

Logs

ssh couchdb "sudo docker logs --tail 500 [container id]" (use "sudo docker container ls")

yum logs: `/var/log/yum.log` OR `sudo yum history`