

# Zookeeper

## Docker Zookeeper

- <https://hub.docker.com/r/library/zookeeper/>
- `docker run -d --restart always --name one-zookeeper -p 2181:2181 -v /etc/localtime:/etc/localtime zookeeper:latest`
  - This image includes EXPOSE 2181 2888 3888 (the zookeeper client port, follower port, election port respectively)
- - `/data`
  - `/datalog`
  - `/conf`
- `docker compose vim zookeeper.yml`
- <https://hub.docker.com/r/library/zookeeper/>

```
version: '3.1'

services:
  zoo1:
    image: zookeeper
    restart: always
    hostname: zoo1
    ports:
      - 2181:2181
    environment:
      ZOO_MY_ID: 1
      ZOO_SERVERS: server.1=0.0.0.0:2888:3888 server.2=zoo2:2888:3888
server.3=zoo3:2888:3888

  zoo2:
    image: zookeeper
    restart: always
    hostname: zoo2
    ports:
      - 2182:2181
    environment:
      ZOO_MY_ID: 2
```

```
ZOO_SERVERS: server.1=zoo1: 2888: 3888 server.2=0. 0. 0. 0: 2888: 3888 server.3=zoo3: 2888: 3888
```

zoo3:

image: zookeeper

restart: always

hostname: zoo3

ports:

- 2183: 2181

environment:

ZOO\_MY\_ID: 3

ZOO\_SERVERS: server.1=zoo1: 2888: 3888 server.2=zoo2: 2888: 3888 server.3=0. 0. 0. 0: 2888: 3888

- `docker-compose -f zookeeper.yml -p zk_test up -d`
  - `-p zk_test` `compose p` `COMPOSE_PROJECT_NAME=zk_test docker-compose -f zookeeper.yml up -d`
  - Docker-Compose
- `docker-compose -f zookeeper.yml -p zk_test stop`

## nc zookeeper

- CentOS 7.4
- <https://nmap.org/download.html> rpm
- `20` `wget https://nmap.org/dist/ncat-7.60-1.x86_64.rpm`
- `sudo rpm -i ncat-7.60-1.x86_64.rpm`
- `ln` `sudo ln -s /usr/bin/ncat /usr/bin/nc`
- `nc --version`
- `echo stat | nc 127.0.0.1 2181`

```
Zookeeper version: 3.4.11-37e277162d567b55a07d1755f0b31c32e93c01a0, built on 11/01/2017 18:06 GMT
```

Clients:

```
/172.21.0.1: 58872[0] (queued=0, recved=1, sent=0)
```

Latency min/avg/max: 0/0/0

Received: 1

Sent: 0

Connections: 1

Outstanding: 0

Zxid: 0x100000000

Mode: follower

Node count: 4

- `echo stat | nc 127.0.0.1 2182`

```
Zookeeper version: 3.4.11-37e277162d567b55a07d1755f0b31c32e93c01a0, built on 11/01/2017 18:06 GMT
Clients:
  /172.21.0.1:36190[0] (queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0
Received: 1
Sent: 0
Connections: 1
Outstanding: 0
Zxid: 0x500000000
Mode: follower
Node count: 4
```

- `echo stat | nc 127.0.0.1 2183`

```
Zookeeper version: 3.4.11-37e277162d567b55a07d1755f0b31c32e93c01a0, built on 11/01/2017 18:06 GMT
Clients:
  /172.21.0.1:33344[0] (queued=0,recved=1,sent=0)

Latency min/avg/max: 0/0/0
Received: 1
Sent: 0
Connections: 1
Outstanding: 0
Zxid: 0x500000000
Mode: leader
Node count: 4
```

- - `172.24.165.129`    `47.91.22.116`
  - `172.24.165.130`    `47.91.22.124`
  - `172.24.165.131`    `47.74.6.138`
- `hostname`
  - `hostnamectl --static set-hostname youmeekhost1`
  - `hostnamectl --static set-hostname youmeekhost2`
  - `hostnamectl --static set-hostname youmeekhost3`
- `hvim /etc/hosts`

```
172.24.165.129 youmeekhost1
172.24.165.130 youmeekhost2
172.24.165.131 youmeekhost3
```

- 1

```
docker run -d \
-v /data/docker/zookeeper/data: /data \
-v /data/docker/zookeeper/log: /data/log \
-e ZOO_MY_ID=1 \
-e "ZOO_SERVERS=server.1=youmeekhost1: 2888: 3888 server.2=youmeekhost2: 2888: 3888
server.3=youmeekhost3: 2888: 3888" \
--name=zookeeper1 --net=host --restart=always zookeeper
```

- 2

```
docker run -d \
-v /data/docker/zookeeper/data: /data \
-v /data/docker/zookeeper/log: /data/log \
-e ZOO_MY_ID=2 \
-e "ZOO_SERVERS=server.1=youmeekhost1: 2888: 3888 server.2=youmeekhost2: 2888: 3888
server.3=youmeekhost3: 2888: 3888" \
--name=zookeeper2 --net=host --restart=always zookeeper
```

- 3

```
docker run -d \
-v /data/docker/zookeeper/data: /data \
-v /data/docker/zookeeper/log: /data/log \
-e ZOO_MY_ID=3 \
-e "ZOO_SERVERS=server.1=youmeekhost1: 2888: 3888 server.2=youmeekhost2: 2888: 3888
server.3=youmeekhost3: 2888: 3888" \
--name=zookeeper3 --net=host --restart=always zookeeper
```

- JDK

- <https://zookeeper.apache.org/>
- 201702 | 3.4.9 | base
- <http://www.apache.org/dyn/closer.cgi/zookeeper/>
- | zookeeper-3.4.8.tar.gz |

- - `mkdir -p /usr/program/zookeeper/data`
  - `cd /opt/setups`
  - `tar zxvf zookeeper-3.4.8.tar.gz`
  - `mv /opt/setups/zookeeper-3.4.8 /usr/program/zookeeper`
  - `cd /usr/program/zookeeper/zookeeper-3.4.8/conf`
  - `mv zoo_sample.cfg zoo.cfg`
  - `vim zoo.cfg`
- - `dataDir=/tmp/zookeeper`
  - `dataDir=/usr/program/zookeeper/data`
- 2181
  - `iptables -A INPUT -p tcp -m tcp --dport 2181 -j ACCEPT`
  - `service iptables save`
  - `service iptables restart`
- `zookeeper$ sh /usr/program/zookeeper/zookeeper-3.4.8/bin/zkServer.sh start`
- `zookeeper$ sh /usr/program/zookeeper/zookeeper-3.4.8/bin/zkServer.sh stop`
- `zookeeper$ sh /usr/program/zookeeper/zookeeper-3.4.8/bin/zkServer.sh status`
  - leader
  - follower

- 3 5
- CentOS 6
- 1 192.168.1.121
- 2 192.168.1.111
- 3 192.168.1.112

- `vim /usr/program/zookeeper/zookeeper-3.4.8/conf/zoo.cfg`
- 

```
server.1=192.168.1.121:2888:3888
server.2=192.168.1.111:2888:3888
server.3=192.168.1.112:2888:3888
```

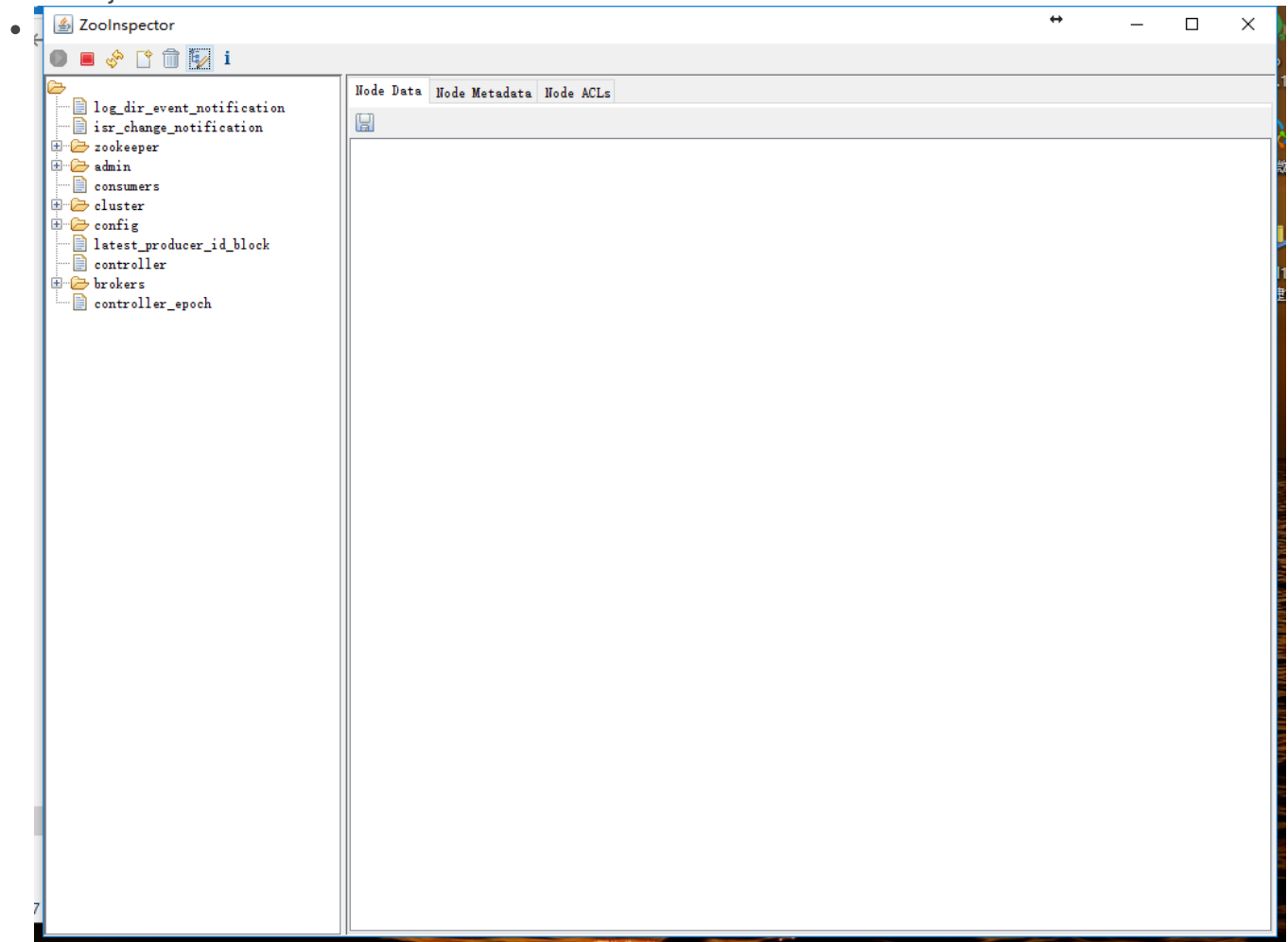
- `vim /usr/program/zookeeper/data/myid | 1`
- `vim /usr/program/zookeeper/data/myid | 2`
- `vim /usr/program/zookeeper/data/myid | 3`
- `sh /usr/program/zookeeper/zookeeper-3.4.8/bin/zkServer.sh start`
- `sh /usr/program/zookeeper/zookeeper-3.4.8/bin/zkServer.sh status`

```
Using config: /usr/program/zookeeper/zookeeper-3.4.8/bin/../conf/zoo.cfg
Mode: follower    Mode: leader
```

# Zookeeper

# ZooInspector

- <https://issues.apache.org/jira/secure/attachment/12436620/ZooInspector.zip>
- jar



## zooweb

- <https://github.com/zhuhongyu345/zooweb>
- Spring Boot Web `java -jar zooweb-1.0.jar` web `http://127.0.0.1:9345`

zookeeper cfg

添加 更新 删除

| ID | DES              | URL            | SESSIONTIMEOUT(s) |
|----|------------------|----------------|-------------------|
| 1  | f36e57552284c111 | 127.0.0.1:2181 | 3600              |

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zookeeper tree

- /
  - log\_dir\_event\_notification
  - isr\_change\_notification
  - zookeeper
    - admin
    - consumers
    - cluster
    - config
    - latest\_producer\_id\_block
    - controller
      - brokers
      - controller\_epoch

state

data:

```
{
  "controller_epoch": 2,
  "leader": 1001,
  "version": 1,
  "leader_epoch": 1,
  "isr": [1001]}

```

czxid: 97  
 mxid: 318  
 ctime: 1523267978611  
 mtime: 1525341307859  
 version: 1  
 cversion: 0  
 aversion: 0  
 ephemeralOwner: 0  
 dataLength: 78  
 numChildren: 0  
 pzxid: 97  
 scheme: world  
 id: anyone  
 perms: Read, Write, Create, Delete, Admin

保存

- <https://liwei.io/2017/07/19/zookeeper-cluster-in-docker/>

Revision #1

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