# TrueChain mining tutorial (docker version)

## install docker

ubuntu reference <https://docs.docker.com/install/linux/docker-ce/ubuntu/>.

Mac reference <https://docs.docker.com/docker-for-mac/install/>.

Windows reference <https://docs.docker.com/docker-for-windows/install/>.

## start docker

service docker start

## pull truechain image

docker pull registry.cn-hangzhou.aliyuncs.com/truechain\_space/truechain\_image:latest

## change image tag to getrue

docker tag registry.cn-hangzhou.aliyuncs.com/truechain\_space/truechain\_image getrue

## create config file

1.create truechain folder mkdir truechain

2.enter truechain folder cd truechain

3.create config file, configure by your own command.

1. participate in committee election vi config copy the below content to the config file

[Etrue]

EnableElection = true

Host = "124.251.110.179"//change this ip address to your local Internet IPv4 address

Etherbase = "0x58f5e2c7cf723c0e76ca1bc236bed39d2d82001d"//this address is mining address, please pay attention to changing the address to your own account address.

2）not participate in committee election vi config copy the below content to the config file

[Etrue]

Host = "124.251.110.177"//change this ip address to your local Internet IPv4 address

Etherbase = "0x58f5e2c7cf723c0e76ca1bc236bed39d2d82001d"//this address is mining address, please pay attention to changing the address to your own account address.

## run node's auto-mining process

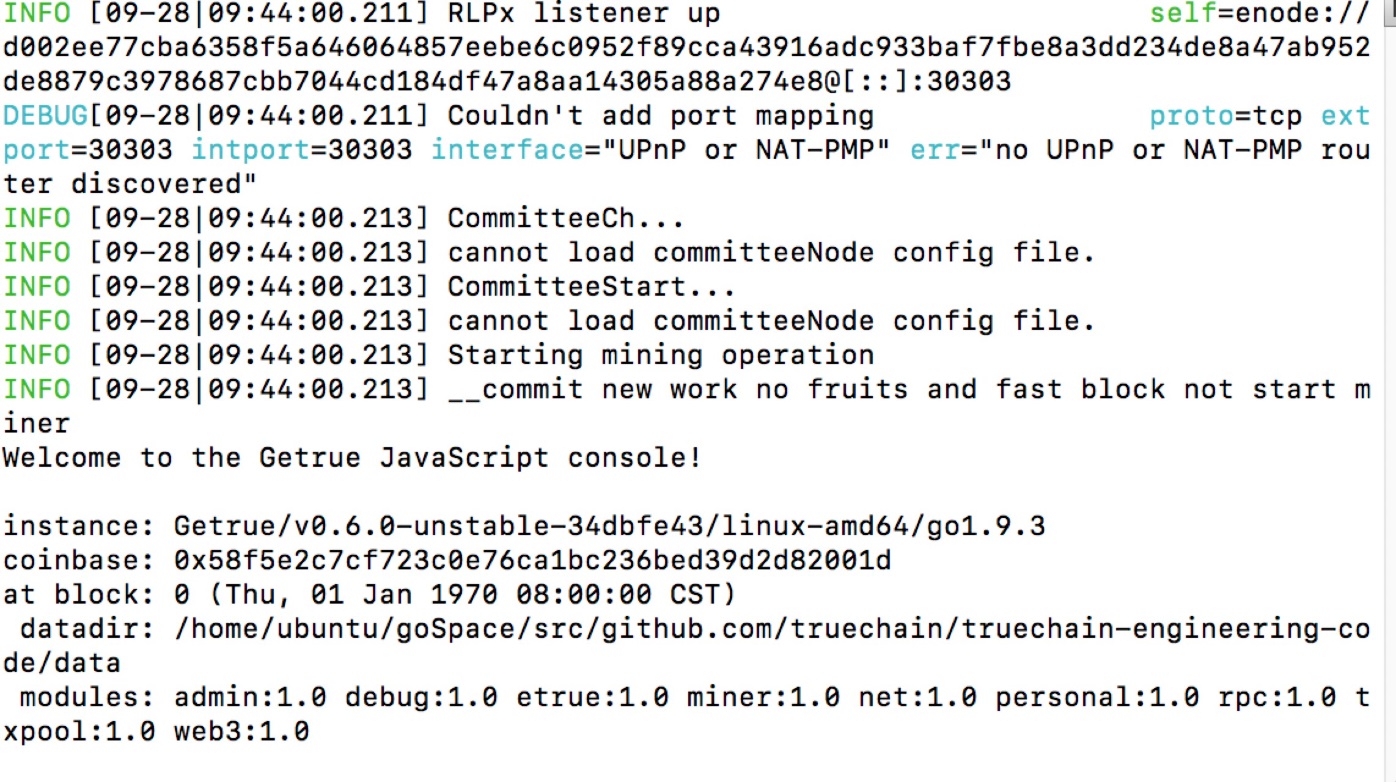
run mining command, select below stpes depend on your command.

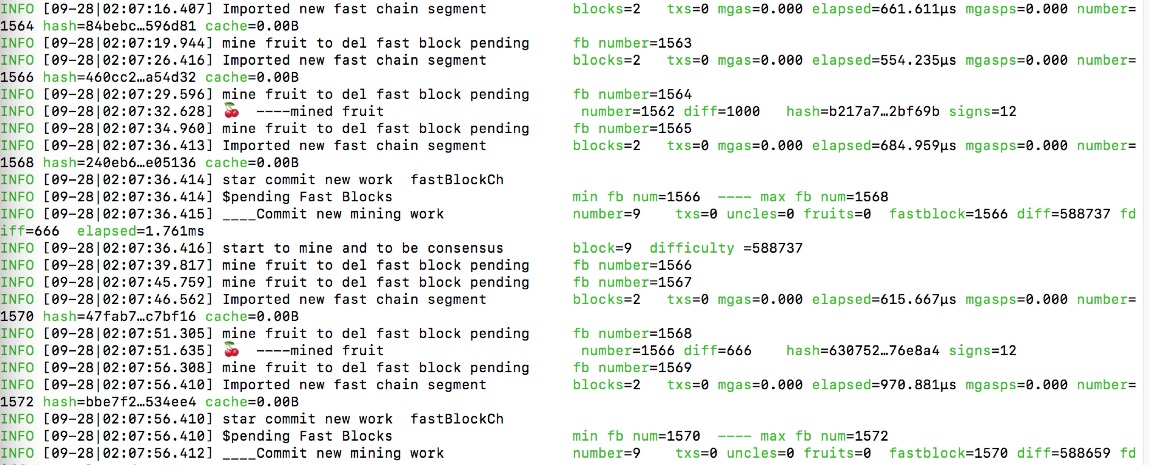
### mine as the committee election node

1.enter truechain folder, run auto-mining process depend on node's command.

1）only mine fruit

docker run -v $PWD:/truechain-engineering-code -it -p 30311:30311 -p 30310:30310 -p 30303:30303 -p 9215:9215 getrue --datadir /truechain-engineering-code/data --config /truechain-engineering-code/config --testnet --mine --minefruit --election console

[](https://github.com/truechain/wiki/blob/master/developer/img/TrueChain_mining_procedure_02.jpg)

[](https://github.com/truechain/wiki/blob/master/developer/img/TrueChain_mining_procedure_01.jpg)

2）mine fruit and block

docker run -v $PWD:/truechain-engineering-code -it -p 30311:30311 -p 30310:30310 -p 30303:30303 -p 9215:9215 getrue --datadir /truechain-engineering-code/data --config /truechain-engineering-code/config --testnet --mine --election console

2.command analysis

-p : mapping the container's port to the host

--datadir : data storage folder

--minefruit : specify only mine fruit

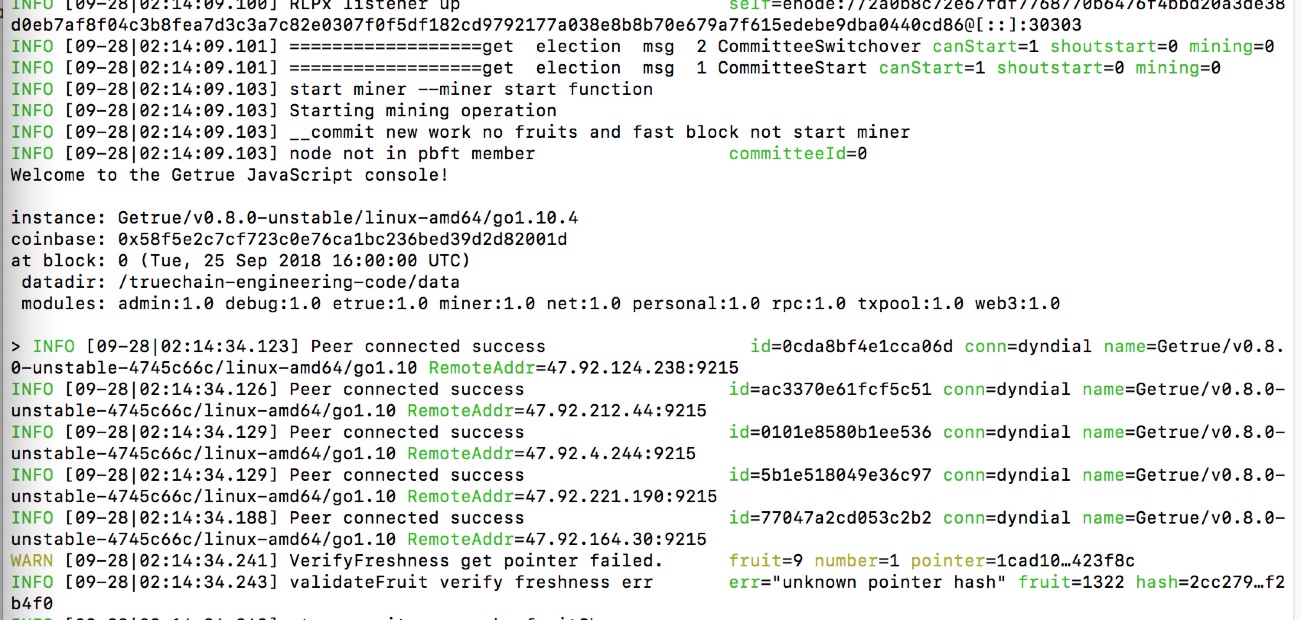
--election : this node participate in committee election

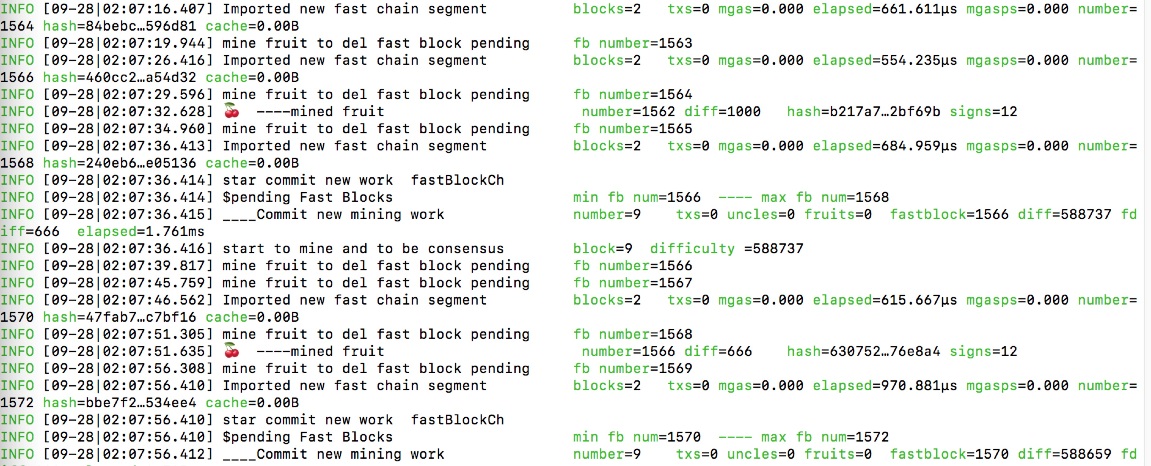
### mine as the node which not participate in committee election

1.enter truechain folder, run auto-mining process depend on node's command.

1）only mine fruit

docker run -v $PWD:/truechain-engineering-code -it -p 30311:30311 -p 30310:30310 -p 30303:30303 -p 9215:9215 getrue --datadir /truechain-engineering-code/data --config /truechain-engineering-code/config --testnet --mine --minefruit console

[](https://github.com/truechain/wiki/blob/master/developer/img/TrueChain_mining_procedure_03.jpg)

[](https://github.com/truechain/wiki/blob/master/developer/img/TrueChain_mining_procedure_01.jpg)

2）mine fruit and block

docker run -v $PWD:/truechain-engineering-code -it -p 30311:30311 -p 30310:30310 -p 30303:30303 -p 9215:9215 getrue --datadir /truechain-engineering-code/data --config /truechain-engineering-code/config --testnet --mine console

2.command analysis

-p : mapping the container's port to the host

--datadir : data storage folder

--minefruit : specify only mine fruit

--election : this node participate in committee election

## enter node's console

1.query mining's coinbase address : etrue.coinbase

2.query account's balance : etrue.getBalance("account address")//account address is your own mining address

3.stop mining : miner.stop()

4.console restart mining, you can add number in the bracket, which means the number of the threads: miner.start()

5.exit console and exit program：exit