EOS编译

注意:

1.eos编译的时候安装了secp256k1会影响到以太坊的环境导致eth编译报错:

In file included from /Users/zhaojing/Work/aleth/libdevcrypto/Common.cpp:26:

/usr/local/include/secp256k1\_ecdh.h:21:1: error: unknown type name 'SECP256K1\_API'

SECP256K1\_API SECP256K1\_WARN\_UNUSED\_RESULT int secp256k1\_ecdh(

原因: Problem fixed. There was another secp256k1.h file in my /usr/local/include/ directory, which is different from the cpp-ethereum/build/deps/include/ one, and it doesn't have any SECP256K1\_APIsymbol. After removing the /usr/local/include/secp256k1.h, everything went ok. Issue closed.

解决方式:移除/usr/local/include/secp256k1.h

编译以太坊的时候 暂时把文件名改了secp256k1==.h

2.在qt上编译的话得修改下cmakelist.txt, 按照下面遇到的问题修改.

3.检查这两个文件里是否有llvm路径指定~/.zshrc ~/.bash\_profile

4.注意qt下运行不能加这个命令--access-control-allow-origin “\*”, 不然一运行就自动退出.

把上面那个参数换成--access-control-allow-origin "\*" --access-control-allow-headers "\*" --access-control-allow-credentials true

是可以启动的.

原因:是参数里双引号是中文字符,改成英文字符就可以了,非参数多少的问题.

5.qt下调试,使用控制台kill, 重新启动无需添加命令参数--hard-replay

**编译步骤:**

1. brew install automake libtool boost openssl llvm

2.Install secp256k1-zkp

git clone https://github.com/cryptonomex/secp256k1-zkp.git

cd secp256k1-zkp

./autogen.sh

./configure

make

sudo make install

### 3. Build LLVM and clang for WASM

mkdir ~/wasm-compiler

cd ~/wasm-compiler

git clone --depth 1 --single-branch --branch release\_40 https://github.com/llvm-mirror/llvm.git

cd llvm/tools

git clone --depth 1 --single-branch --branch release\_40 https://github.com/llvm-mirror/clang.git

cd ..

mkdir build

cd build

cmake -G "Unix Makefiles" -DCMAKE\_INSTALL\_PREFIX=.. -DLLVM\_TARGETS\_TO\_BUILD= -DLLVM\_EXPERIMENTAL\_TARGETS\_TO\_BUILD=WebAssembly -DCMAKE\_BUILD\_TYPE=Release ../

make -j4 install

### 4. Add WASM\_LLVM\_CONFIG and LLVM\_DIR to your .zshrc or . bash\_profile

echo "export WASM\_LLVM\_CONFIG=~/wasm-compiler/llvm/bin/llvm-config" >> ~/.zshrc

echo "export LLVM\_DIR=/usr/local/Cellar/llvm/4.0.1/lib/cmake/llvm" >> ~/.zshrc

source ~/.zshrc

### 5. Using the WASM compiler to perform a full build of the project

git clone https://github.com/eosio/eos --recursive

mkdir -p eos/build && cd eos/build

cmake ..

make -j4

编译过程遇到错误:

1. **/usr/local/wasm/bin/llvm-link: algorithm.cpp.bc: error: Could not open input file: No such file or directory**

是由于没有权限导致编译合约的时候,没办法创建或覆盖之前编译的.bc文件导致的.只需要加上 sudo ./eosio\_build.sh

即使加了这个后面又有什么copy不了的错误。真是日. 最后不管了直接make通过.

以上是早起版本的编译方式.

现在的编译方式:

git clone https://github.com/EOSIO/eos --recursive

git checkout v1.0.6

cd eos

./eosio\_build.sh

启动私有链:

./nodeos -e -p eosio -d /Users/zhaojing/Work/EOS/db --plugin eosio::chain\_api\_plugin --plugin eosio::history\_api\_plugin –contracts-console --access-control-allow-origin “\*”

查看是否启动成功

./cleos get info

创建钱包:key1是自动生成的钱包密码

./cleos wallet create -n local -f /Users/zhaojing/Work/EOS/db/key1

创建公私钥,创建两组:

./cleos create key --to-console

Private key: 5JK39JdsPvXrwYx1gBiwL7xw8Bmxpp9W1hY3eYGwAK6qggkvQsR

Public key: EOS5xNBC3a3vkJLZariENb6ZWKmuoLgxkEf5pYDd58vrFX4TvJjyN

./cleos create key --to-console

Private key: 5JF5MKJZQ8JRpZ2aFRAm3gmbQaTsG3k2cUGhaK3pwqDRp1rpMnb

Public key: EOS5knPYc8ZjMCCGmStaPQ12errsKKgyzujfnXKsQJqagcoBAGkqq

登录钱包:

./cleos wallet unlock -n local

PW5JyjN9mSVfZ2S5WnFnAJGEqDoRYkzJiB7RTscjcAG4JyB5djm9T

导入私钥到账户：

./cleos wallet import -n local --private-key 5JK39JdsPvXrwYx1gBiwL7xw8Bmxpp9W1hY3eYGwAK6qggkvQsR

./cleos wallet import -n local --private-key 5JF5MKJZQ8JRpZ2aFRAm3gmbQaTsG3k2cUGhaK3pwqDRp1rpMnb

查询钱包里的key：

./cleos wallet keys

创建eos账户

./cleos create account eosio local EOS5xNBC3a3vkJLZariENb6ZWKmuoLgxkEf5pYDd58vrFX4TvJjyN EOS5knPYc8ZjMCCGmStaPQ12errsKKgyzujfnXKsQJqagcoBAGkqq

会报错：

Error 3090003: Provided keys, permissions, and delays do not satisfy declared authorizations

解决方式需要导入eosio公私钥:

cd /Users/zhaojing/Library/Application Support/eosio/nodeos/config

或者cd Library/Application\ Support/eosio/nodeos/config/

找到下面这行:

signature-provider = EOS6MRyAjQq8ud7hVNYcfnVPJqcVpscN5So8BhtHuGYqET5GDW5CV=KEY:5KQwrPbwdL6PhXujxW37FSSQZ1JiwsST4cqQzDeyXtP79zkvFD3

然后导入公开的私钥到钱包

./cleos wallet import -n local --private-key 5KQwrPbwdL6PhXujxW37FSSQZ1JiwsST4cqQzDeyXtP79zkvFD3

授权后就不会报错了.

用公钥地址查询eos账户:

./cleos get accounts EOS5xNBC3a3vkJLZariENb6ZWKmuoLgxkEf5pYDd58vrFX4TvJjyN

./cleos get accounts EOS5knPYc8ZjMCCGmStaPQ12errsKKgyzujfnXKsQJqagcoBAGkqq

设置eosiocpp

echo 'export PATH="/Users/zhaojing/Work/EOS/eos/tools:$PATH"' >> ~/.bash\_profile

source ~/.bash\_profile

创建合约:

cd /Users/zhaojing/Work/EOS/HelloWorld

vi helloWorld.cpp

### 生成.wast文件

eosiocpp -o HelloWorld.wast HelloWorld.cpp

生成.abi文件

eosiocpp -g HelloWorld.abi HelloWorld.cpp

部署合约:

./cleos set contract local ../../../HelloWorld

执行合约:

./cleos push action local hi '{"user":"helloworld"}' -p local

转账:

发代币合约

./cleos set contract local ../../contracts/eosio.token

创建代币

// ./cleos push action local create '[ "eosio", "1000000000.0000 EOS", 0, 0, 0]' -p local

./cleos push action local create '[ "local", "1000000000.0000 EOS", 0, 0, 0]' -p local

给账户发币

//./cleos push action local issue '["local", "1000.0000 EOS","tttt"]' -p eosio

./cleos push action local issue '["local", "1000.0000 EOS","tttt"]' -p local

查询代币

./cleos get currency balance local local EOS

转账(需要再建立一个sender账户,创建步骤同上)

./cleos push action local transfer '["local", "sender", "100.0000 EOS","tttt"]' -p local

新命令:

./cleos transfer -c local local allan "10.0000 EOS" "memo"

注意:

1. 报错 database dirty flag set (likely due to unclean shutdown): replay required

原因:是由于非法的结束进程导致.

解决:重新启动加上参数--hard-replay, 然后ps aux|grep node kill pid. 然后去掉启动参数--hard-replay,以后每次结束的时候用kill pid命令.

pkill -SIGINT nodeos, 经尝试这种kill只有在cmd方式启动的时候生效,debug下依然不行.

1. qt打开工程一直报错LLVM\_DIR的错误

解决:重新执行一下./eosio\_build.sh, 后来发现clion也不行了,于是重新执行一下就好了…

这个结论不一定正确,因为后面重新来了一遍并不行…

最后解决方式:

修改cmakelist.txt文件,添加下面两行,

SET(LLVM\_DIR /Users/zhaojing/wasm-compiler/llvm/lib/cmake/llvm)

SET(CMAKE\_PREFIX\_PATH /Users/zhaojing/wasm-compiler/llvm/lib/cmake/)

上面这个不行编译到30%报llvm link的错误,还是得指定到llvm@4的版本,下面的添加方式是参照eosio\_build.sh里的export设置:

SET(LLVM\_DIR /usr/local/opt/llvm@4/lib/cmake/llvm)

原因:brew info llvm,提示如下,感觉像是系统已经存在别的版本的llvm link,而eos编译只支持llvm@4.所以你直接在cmakelist里面写死就行了.另外通过查看cmakelist编译的log发现里面自动寻找的是llvm@9的版本,太高了.

llvm is keg-only, which means it was not symlinked into /usr/local,

because macOS already provides this software and installing another version in

parallel can cause all kinds of trouble.

1. 执行./eosio\_build.sh 一直报什么.cpp.bc 或 .c.bc找不到的错误.

解决:删掉这些文件就好了

find ./ -iname "\*.cpp.bc" -exec rm -r "{}" \;

find ./ -iname "\*.c.bc" -exec rm -r "{}" \;

哪个报错就删哪个…