
KMDICE docs Documentation

Release 0.0.1

Chainmakers

Jan 16, 2019

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Here we will show how to get KMDICE installed and ready to be played.

Installing KMDICE on Ubuntu/Debian

Requirements

Currently, you will need:

- Linux (easiest with a Debian-based distribution)
- 64-bit
- 4GB of free memory

Get Started

Log in as the user to your system, and issue these commands to make sure your Linux machine is up to date.

```
sudo apt-get update
sudo apt-get upgrade (and say Y when it wants to upgrade stuff)
```

Install the dependency packages:

```
sudo apt-get install build-essential pkg-config libc6-dev m4 g++-multilib autoconf_
↳libtool ncurses-dev unzip git python zlibg-dev wget bsdmainutils automake libboost-
↳all-dev libssl-dev libprotobuf-dev protobuf-compiler libgtest-dev libqt4-dev_
↳libqrencode-dev libdb++-dev ntp ntpdate vim software-properties-common curl_
↳libcurl4-gnutls-dev cmake clang`
```

Installing Komodo

```
cd ~
git clone https://github.com/jl777/komodo
cd komodo
git checkout jl777
./zcutil/fetch-params.sh -j8`` uses 8 threads - replace 8 with number of threads you_
↳want to use or `nproc` variable
./zcutil/build.sh -j$(nproc)
```

This can take some time.

Now you can start *KMDICE* daemon to sync with the network

```
cd ~
cd komodo
./src/komodod -ac_name=KMDICE -ac_supply=10500000 -ac_reward=2500000000 -ac_
↪halving=210000 -ac_cc=2 -addressindex=1 -spentindex=1 &
```

You might see some outputs in terminal where you started KMDICE daemon.

Activating CC in KMDICE

To play KMDICE you need to run the daemon with the `-pubkey=` parameter.

First, you need to get a new address

```
./komodo-cli -ac_name=KMDICE getnewaddress
```

Second you need to validate the address to get the pubkey

```
./komodo-cli -ac_name=KMDICE validateaddress <ADDRESS>
```

And lastly, after you copy the pubkey from the output of `validateaddress` you can now stop the daemon and restart it with the `-pubkey=` parameter.

```
./komodo-cli -ac_name=KMDICE stop
./src/komodod -ac_name=KMDICE -ac_supply=10500000 -ac_reward=2500000000 -ac_
↪halving=210000 -ac_cc=2 -addressindex=1 -spentindex=1 -pubkey=<YOUR PUBKEY> &
```

Now you will be able to play the game using `dicebet`.

Installing KMDICE on OSX

Requirements

Packages are installed through homebrew, make sure to install it:

```
/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

Now install the dependency packages:

```
brew tap discoteq/discoteq; brew install flock  
brew install autoconf autogen automake  
brew install gcc@6  
brew install binutils  
brew install protobuf  
brew install coreutils  
brew install wget  
brew install nanomsg
```

or

```
brew tap discoteq/discoteq; brew install flock autoconf autogen automake gcc@6  
binutils protobuf coreutils wget nanomsg
```

Clone the Komodo repository

```
git clone https://github.com/KomodoPlatform/komodo
```

Get the proving keys:

```
cd komodo  
./zcutil/fetch-params.sh
```

And now build Komodo

```
git checkout dev
./zcutil/build-mac.sh
```

Run Komodo

If the build went well, run KMDICE:

```
cd ~/komodo/src
./komodod -ac_name=KMDICE -ac_supply=10500000 -ac_reward=2500000000 -ac_
↳halving=210000 -ac_cc=2 -addressindex=1 -spentindex=1 &
```

Get PUBKEY to use Crypto Conditions Dice Game:

```
./komodo-cli -ac_name=KMDICE getnewaddress
```

This command should print a new KMDICE address, copy that address and validate it:

```
./komodo-cli -ac_name=KMDICE validateaddress <ADDRESS>
```

In the output of *validateaddress* you will see a field that says *pubkey*. You need to copy that pubkey and use it to run the daemon with it:

```
./komodo-cli -ac_name=KMDICE stop
```

Now restart the daemon using the *-pubkey* parameter:

```
./komodod -ac_name=KMDICE -ac_supply=10500000 -ac_reward=2500000000 -ac_
↳halving=210000 -ac_cc=2 -addressindex=1 -spentindex=1 -pubkey=<YOUR PUBKEY>
```

That is all, you should now be able to play dice game.

Installing KMDICE on Windows 64-bit systems

PLEASE FOLLOW THE VIDEO TUTORIAL: <https://youtu.be/gfZZy8b222E>

1. First download komodo windows binaries and place the files in a new folder on the Desktop called kmd ('C:\Users\YourUserName\Desktop\kmd').

Open a Command Prompt for the following steps.

2. Next we'll create the Komodo directory in the AppData directory.

```
mkdir "%HOMEPATH%\AppData\Roaming\komodo"
```

3. Next we will create our komodo.conf file.

```
notepad "%HOMEPATH%\AppData\Roaming\Komodo\komodo.conf"
```

When Notepad opens, click Yes to create the komodo.conf file. Copy the information below and paste it into Notepad.

```
rpcuser=yourRpcUserName  
rpcpassword=yourSecurePassword  
daemon=1  
rpcallowip=127.0.0.1  
rpcbind=127.0.0.1  
server=1  
listen=1  
addnode=5.9.102.210  
addnode=78.47.196.146  
addnode=178.63.69.164  
addnode=88.198.65.74  
addnode=5.9.122.241  
addnode=144.76.94.38  
txindex=1  
maxconnections=1
```

After pasting, save and exit Notepad.

4. So now that you have created your `komodo.conf` file you are ready to download the [zk-snark proving key](#) and [verifying key](#). While the keys are downloading let's paste following command to create the directory for ZcashParams:

```
mkdir "%HOMEPATH%\AppData\Roaming\ZcashParams"
```

Once the keys have finished downloading, we'll paste this command to move the keys to our newly created ZcashParams directory:

```
move "%HOMEPATH%\Downloads\sprout-proving.key" "%HOMEPATH%
↪%\AppData\Roaming\ZcashParams" && move "%HOMEPATH%\Downloads\sprout-verifying.key" "
↪%HOMEPATH%\AppData\Roaming\ZcashParams"
```

5. Now we can run KMDICE

```
"%HOMEPATH%\Desktop\kmd\komodod.exe -ac_name=KMDICE -ac_supply=10500000 -ac_
↪reward=2500000000 -ac_halving=210000 -ac_cc=2 -addressindex=1 -spentindex=1 &"
```

6. Komodod should start syncing. You can check progress by running

```
"%HOMEPATH%\Desktop\kmd\komodo-cli.exe" -ac_name=KMDICE getinfo
```

7. To activate CC and be able to play KMDICE you need to get a newaddress

```
"%HOMEPATH%\Desktop\kmd\komodo-cli.exe" -ac_name=KMDICE getnewaddress
```

8. Validate the new address with `validateaddress`:

```
"%HOMEPATH%\Desktop\kmd\komodo-cli.exe" -ac_name=KMDICE validateaddress <ADDRESS>
```

Copy the pubkey in the `validateaddress` output and then stop `kmdice` daemon

To stop `komodod`, run:

```
"%HOMEPATH%\Desktop\kmd\komodo-cli.exe" -ac_name=KMDICE stop
```

9. Restart KMDICE daemon with `-pubkey` parameter:

```
%HOMEPATH%\Desktop\kmd\komodod.exe -ac_name=KMDICE -ac_supply=10500000 -ac_
↪reward=2500000000 -ac_halving=210000 -ac_cc=2 -addressindex=1 -spentindex=1 -pubkey=
↪<YOURPUBKEY> &
```

Downloads:

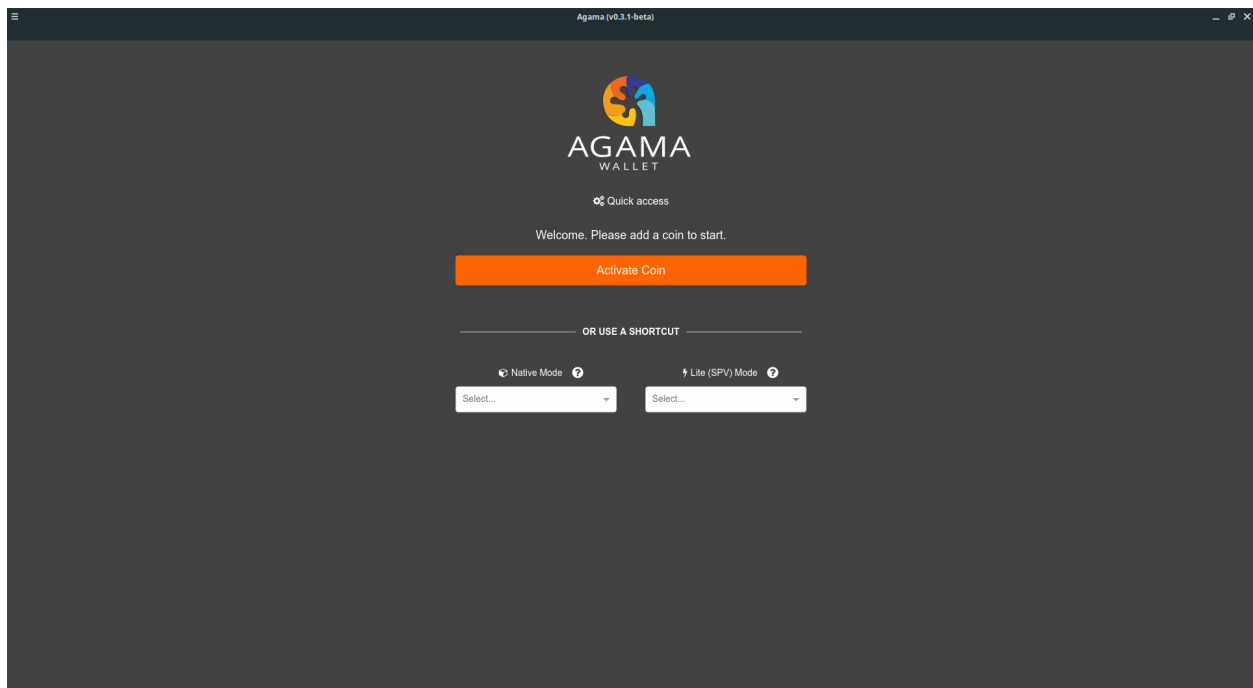
1. Windows Binaries: <https://artifacts.supernet.org/latest/windows>
2. Zk-snark proving keys: <https://z.cash/downloads/sprout-proving.key>
3. Verifying keys: <https://z.cash/downloads/sprout-verifying.key>

Install KMDICE using Agama Native Wallet

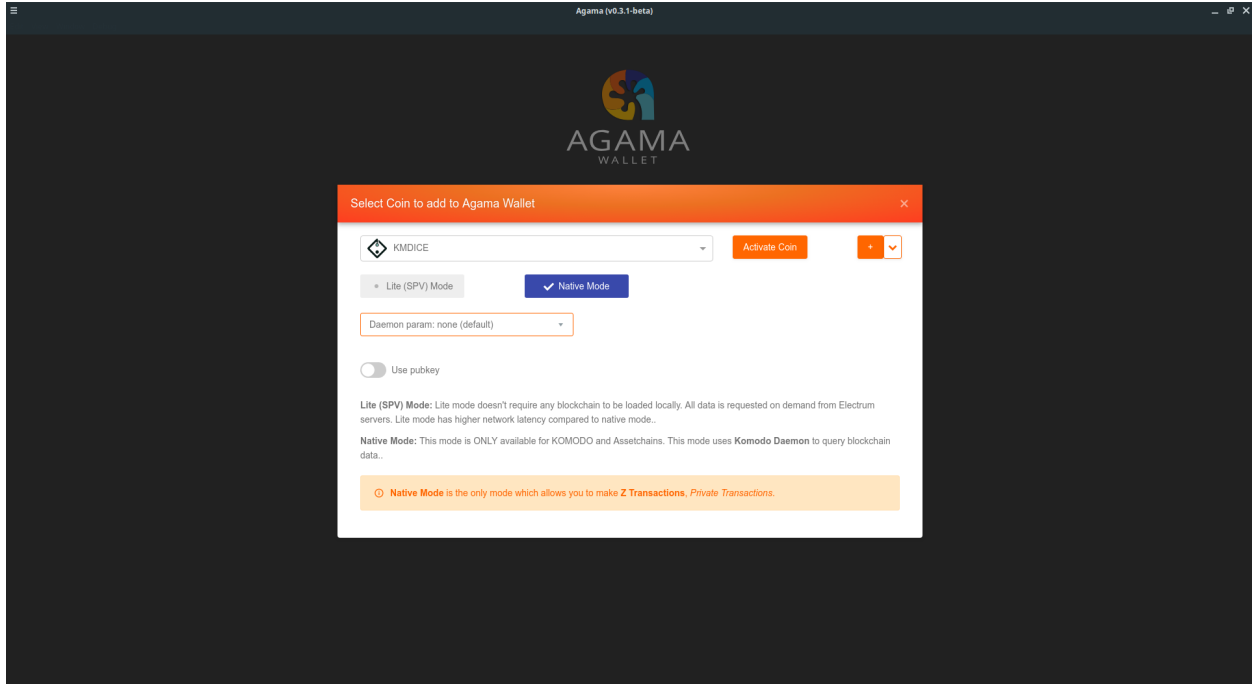
First step to get KMDICE running natively in Agama is to download latest Agama release:

[Download Agama Wallet](#)

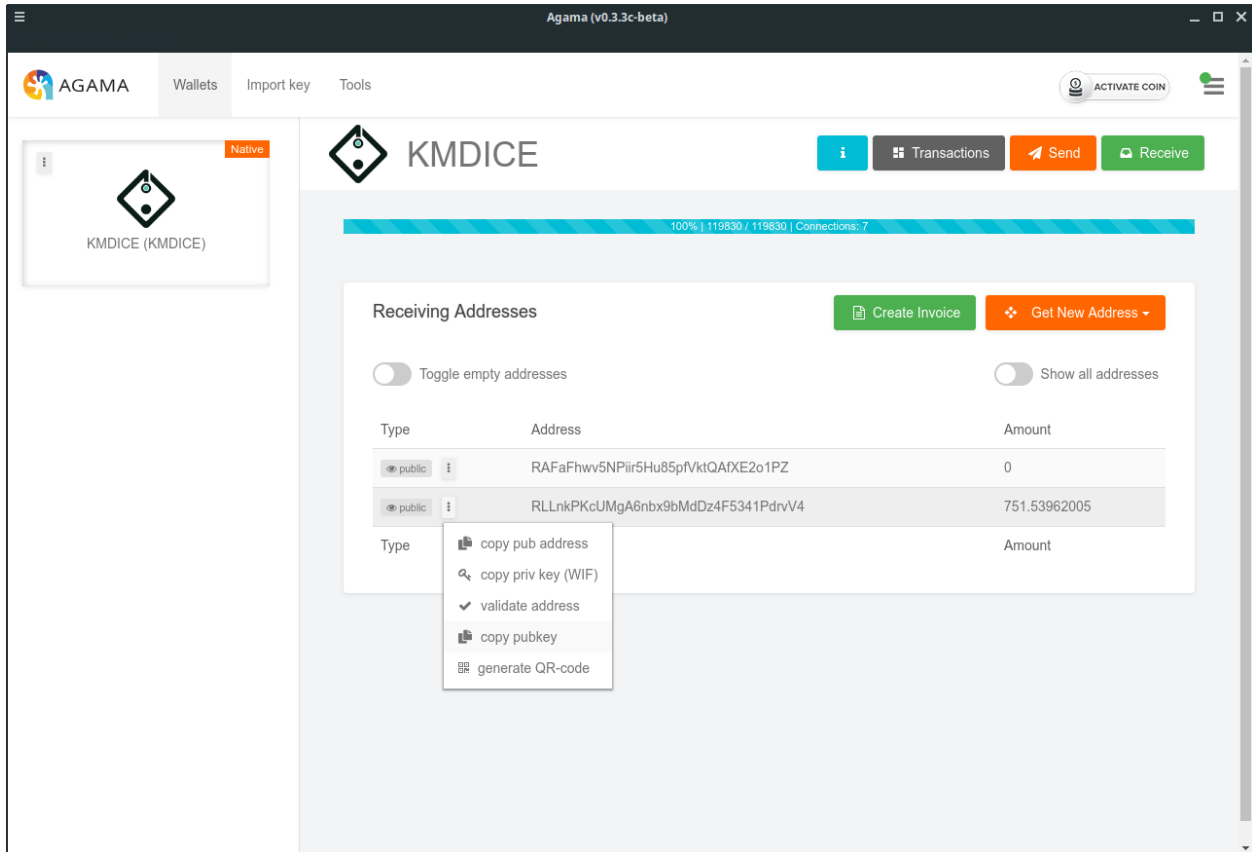
After downloading Agama for your preferred OS, run it and select `Activate Coin`:



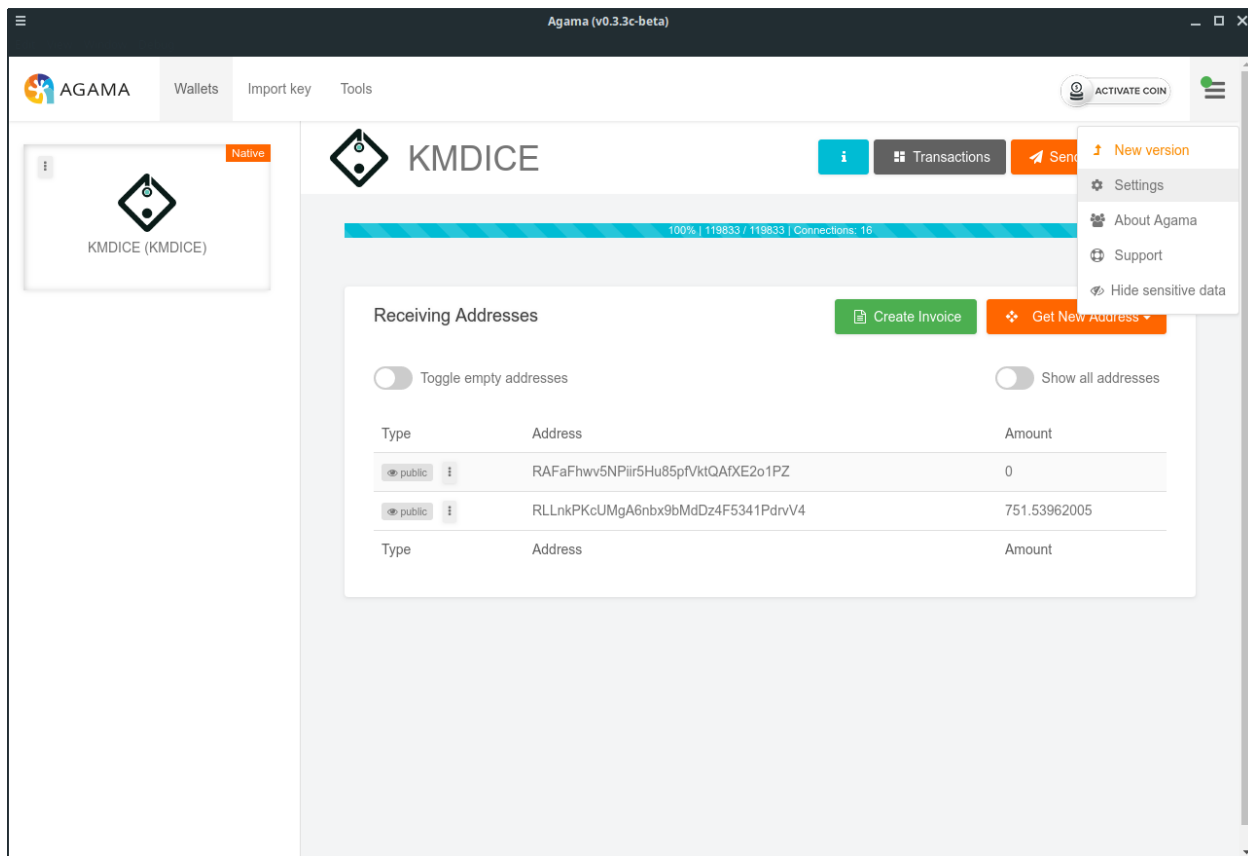
On the dialog box that pops up, start typing `KMDICE` and then select the `Native Mode` option, then press `Activate Coin`:



Once the chain syncs completely you can jump to `Receive` screen in the wallet and look for the address that has KMDICE (if you dont, then deposit some KMDICE to an address) and then select `copy pubkey`:



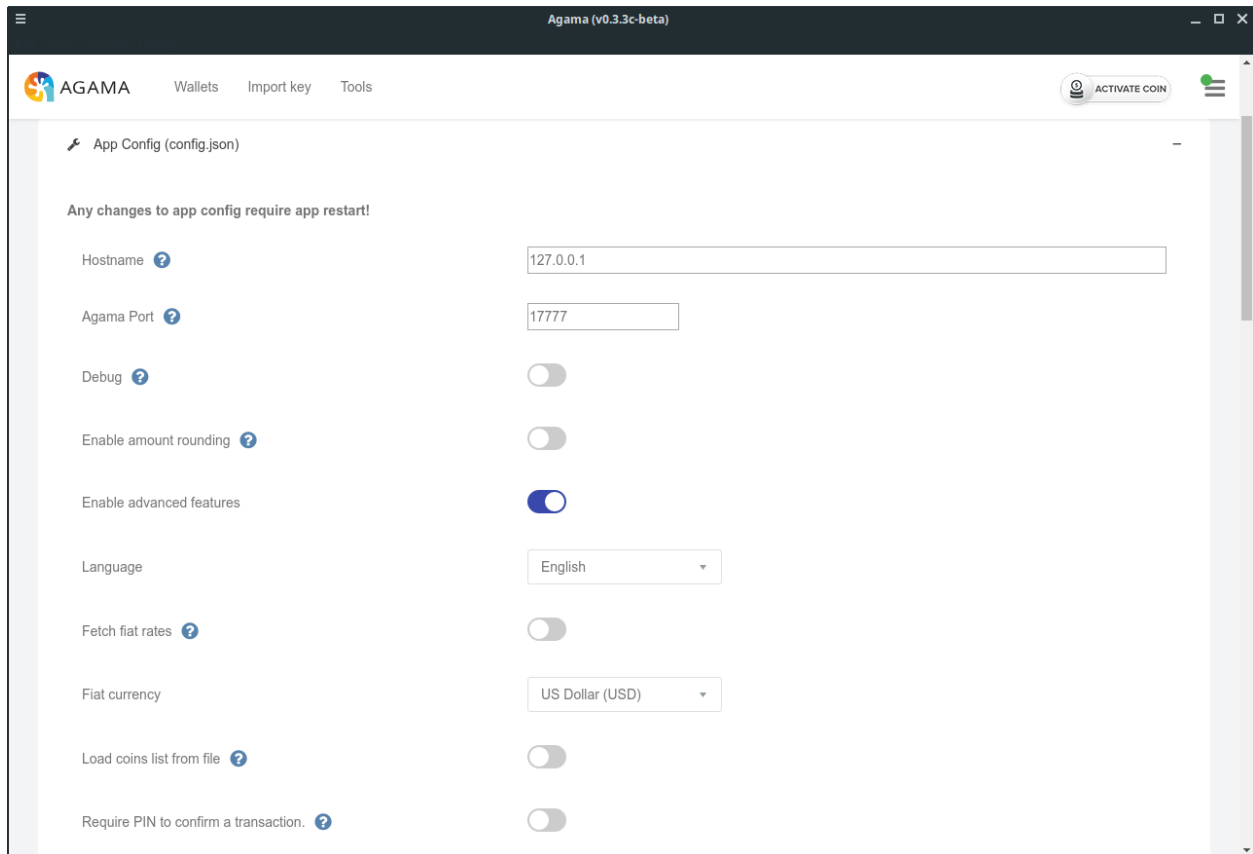
Then in the upper right corner of the screen select to go to `Settings`:



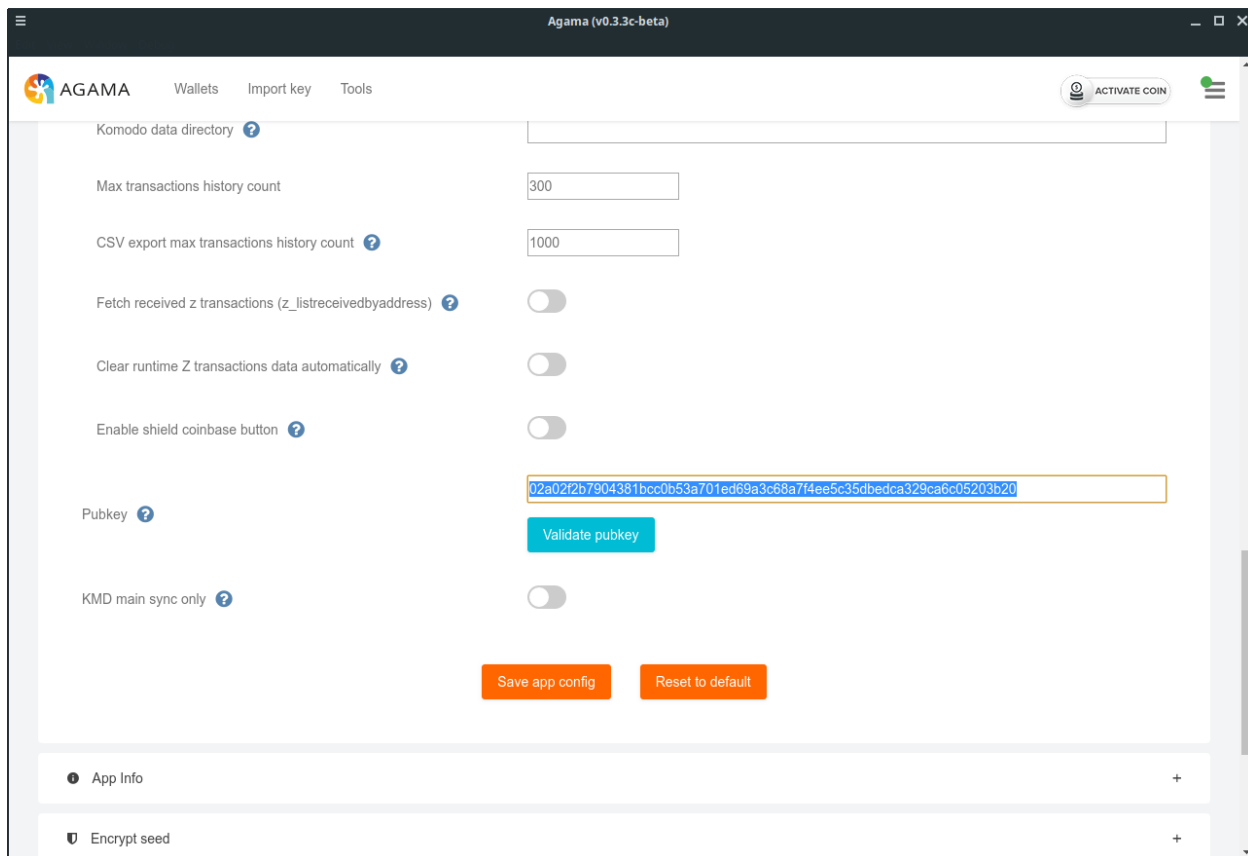
The screenshot shows the Agama v0.3.3c-beta interface. The top navigation bar includes 'AGAMA', 'Wallets', 'Import key', and 'Tools'. The main content area displays the 'KMDICE' wallet settings. A sidebar on the left shows the 'KMDICE (KMDICE)' wallet icon. The 'Receiving Addresses' section is expanded, showing a table with two public addresses and their amounts. The table has columns for 'Type', 'Address', and 'Amount'. The first address is 'RAFaFhwv5NPiir5Hu85pfVktQAfXE2o1PZ' with an amount of '0'. The second address is 'RLLnkPKcUMgA6nbx9bMdDz4F5341PdrvV4' with an amount of '751.53962005'. There are also buttons for 'Create Invoice' and 'Get New Address'.

Type	Address	Amount
public	RAFaFhwv5NPiir5Hu85pfVktQAfXE2o1PZ	0
public	RLLnkPKcUMgA6nbx9bMdDz4F5341PdrvV4	751.53962005

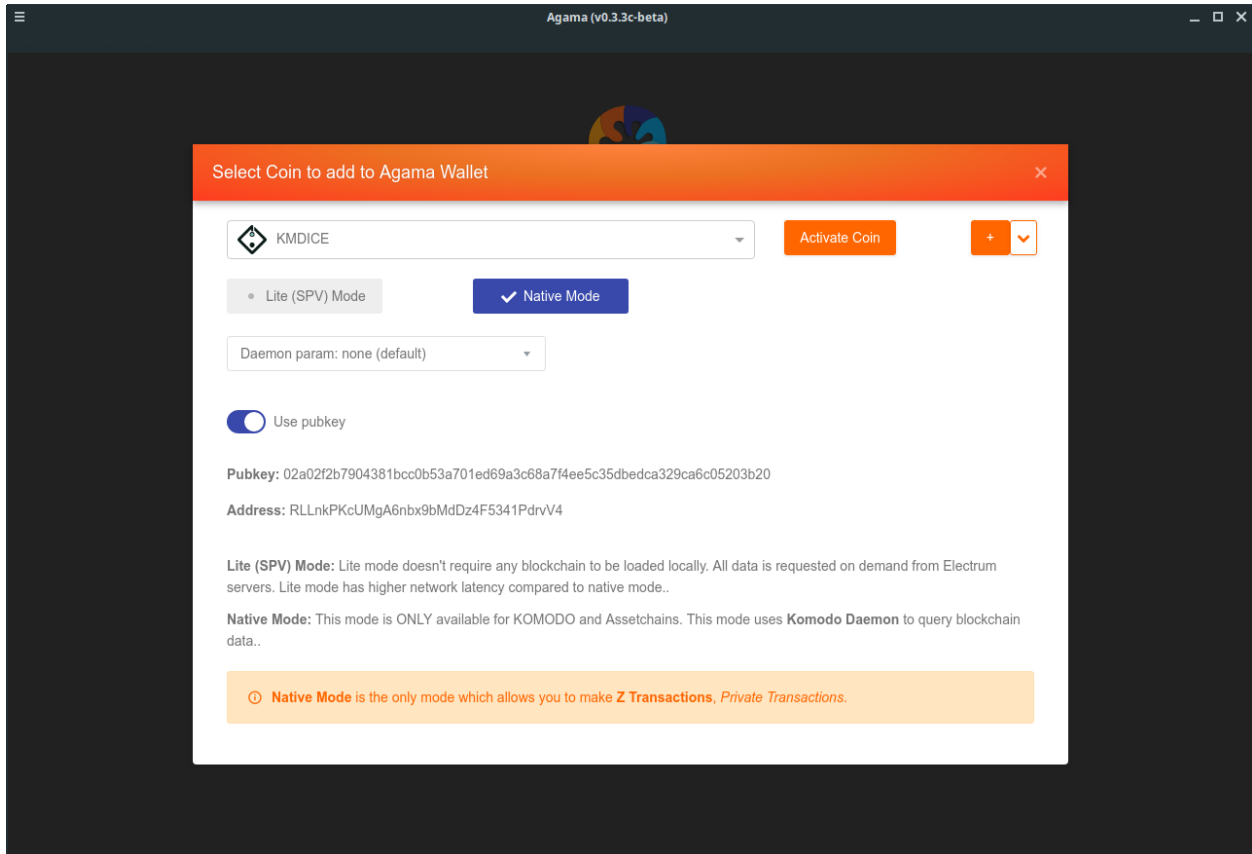
In settings, expand the App Config (config.json) section:



Scroll down to the end of the App Config section and paste the pubkey you copied before into the Pubkey setting's box, then press validate pubkey, then press save app config:



After this step you can now restart the app. When logging in again please select the option to use pubkey:



And that is all, now you will be able to play KMDICE from any KMDICE GUI available.

How to start KMDICE chain and bet using CLI?

Requirements:

1. Latest KMDICE install in dev branch
2. Funds

Funds

There are 3 ways you can get KMDICE coins now.

1. Mine KMDICE
2. Atomic Swap using [BarterDEX](#)
3. OTC trades in [Komodo Discord](#)

Get pubkey value

We need to get `pubkey` value for the `smartaddress` you are going to use the KMDICE wallet with. `pubkey` is needed for CC use. If you already know the pubkey of the address you are going to use, please skip to the [next section](start-kmdice-with-pubkey).

Step 1

Start the chain with the following command and wait for the daemon to sync.

```
./komodod -ac_name=KMDICE -ac_supply=10500000 -ac_reward=2500000000 -ac_
↪halving=210000 -ac_cc=2 -addressindex=1 -spentindex=1 &
```

Step 2

Get a new address

```
./komodo-cli -ac_name=KMDICE getnewaddress
```

Step 3

use `validateaddress` command with the address you got to get the pubkey displayed

```
./komodo-cli -ac_name=KMDICE validateaddress RPCeZmqW4Aam52DFLmMraWtu5CuXPxqk92
```

This will display the following info from where you get the pubkey.

```
{
  "isvalid": true,
  "address": "RPCeZmqW4Aam52DFLmMraWtu5CuXPxqk92",
  "scriptPubKey": "76a91498b5caa42ffe9868844c51ba6e085e5e7e92fc2588ac",
  "segid": 13,
  "ismine": true,
  "iswatchonly": false,
  "isscript": false,
  "pubkey": "02f183a71e93dfa7672ce7212187e45eabcf4077fed575348504b20295751ab1a2",
  "iscompressed": true,
  "account": ""
}
```

Step 4

Stop the KMDICE chain with the following command. (Make sure to use this command every time you want to stop the chain. Otherwise, you risk corrupting database and have to rescan the blockchain again.)

```
./komodo-cli -ac_name=KMDICE stop
```

Start KMDICE with pubkey to Use Dice Game

Use the following command to start KMDICE with pubkey for address you are going to use. If you don't have a pubkey, please follow the earlier steps.

```
./komodod -ac_name=KMDICE -
↳ pubkey=02f183a71e93dfa7672ce7212187e45eabcf4077fed575348504b20295751ab1a2 -ac_
↳ supply=10500000 -ac_reward=2500000000 -ac_halving=210000 -ac_cc=2 -addressindex=1 -
↳ spentindex=1 &
```

How to bet?

Find the Diceplan you want to use.

```
./komodo-cli -ac_name=KMDICE dicelist
```

This will return you the following:

```
[
  "5be49570c56d036abb08b6d084da93a8a86f58fc48db4a1086be95540d752d6f"
]
```

Get info for the diceplan

```
./komodo-cli -ac_name=KMDICE diceinfo_
↳ 5be49570c56d036abb08b6d084da93a8a86f58fc48db4a1086be95540d752d6f
```

This will return the following:

```
{
  "result": "success",
  "fundingtxid": "5be49570c56d036abb08b6d084da93a8a86f58fc48db4a1086be95540d752d6f",
  "name": "KMDICE",
  "sbits": 76155294338379,
```

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```
"minbet": "0.00100000",
"maxbet": "1000.00000000",
"maxodds": 1500,
"timeoutblocks": 600,
"funding": "10469598.73974446"
}
```

Now, you have all info needed to place bet. Make sure that you have KMDICE funds too.

Place a Bet

This is a 2 step process using CLI. First you need to use the `dicebet` command with required info. That will create a raw transaction HEX value which we need to broadcast to the network using `sendrawtransaction` API. This is the example command `dicebet name fundingtxid amount odds`

```
./komodo-cli -ac_name=KMDICE dicebet KMDICE_
↪5be49570c56d036abb08b6d084da93a8a86f58fc48db4a1086be95540d752d6f 10 1
```

Output:

```
{
"result": "success",
"hex":
↪"010000000378c9b0720ac4ffda232bd8ebc1ebf10d78efe23daf59ad887439baf72a3ffd03000000007b4c79a276a072a2
↪"
}
```

Now we need to broadcast this transaction using the following command:

```
./komodo-cli -ac_name=KMDICE sendrawtransaction_
↪010000000378c9b0720ac4ffda232bd8ebc1ebf10d78efe23daf59ad887439baf72a3ffd03000000007b4c79a276a072a2
```

This will output *bettxid*

```
694c309c86a928fde1919a86381f61670479c3ede85ea0574d08636cc406e798
```

Check your balance for the changes to reflect after the tx confirms.

Check Bet Status

You can check your bet status (win or loss) using the following command. Usage: `dicestatus name fundingtxid bettxid`

```
./komodo-cli -ac_name=KMDICE dicestatus KMDICE_
↪5be49570c56d036abb08b6d084da93a8a86f58fc48db4a1086be95540d752d6f_
↪694c309c86a928fde1919a86381f61670479c3ede85ea0574d08636cc406e798
```