TZC

MINING - STAKING
& WALLET CONFIGURATION

PoW & PoS basics

What you need:

a - A local computer running under Ubuntu 16.04 or Windows 8.1/10

b - A bit of patience :)

What we will see:

1 - Mining & Staking very basics.

2 - The treazarcoin.conf file.

3 - Pool mining and solo mining.

4 - What is staking, how to stake.

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This guide will not cover every part of the mining/staking topic, but it will help you to start understanding and most likely deal with the more commonly found issues that may arise.

We're using altminer.net as exemple in this guide, feel free to use any pool you're confortable with.

Mining & Staking

Proof-of-work (PoW) is a type of algorithm by which a cryptocurrency blockchain network aims to rewards participants who solve complicated cryptographical puzzles in order to validate transactions and create new blocks. TZC can be mined via NeoScrypt Algorithm.

Proof-of-stake (PoS) is a type of algorithm by which a cryptocurrency blockchain network aims to achieve distributed consensus.

 - When you're using your CPU or your GPU solve transactions, you're mining.

 - When you're letting your wallet and contribute to the distributed consensus process, you're staking.

 - When you're helping the network, either you're mining or staking, you're rewarded and get incomes :)

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The way your TrezarCoin wallet is interacting with the network can be finetuned according to a specific configuration file we're going to create:

Download the TrezarCoin wallet here according to your operating system and launch it once. It'll generate a data folder. We need to create a new text file in it. Edit it like this and save it as trezarcoin.conf:

```
rpcuser=your_username              >> This is your username, you can choose it freely
rpcpassword=your_strong_password   >> This is your password, it should be strong and complex
irc=1
dns=1
qtstyle=1                          >> The wallet skin. Choose between 1 or 2.
daemon=1
server=1
stakegen=1                         >> Enable or disable staking (PoS).
logtimestamps=1
minersleep=2000
stakemindepth=2800
stakemintime=72                    >> Hours an imput need to mature before staking.
stakecombine=40
stakesplit=80
port=17298
rpcport=17299
addnode=162.217.249.198:17298
addnode=46.4.0.101:17298
```

Nom	Modifié le	Type	Taille
blktree	13/09/2017 17:43	Dossier de fichiers	
blocks	10/09/2017 10:58	Dossier de fichiers	
coins	15/09/2017 05:36	Dossier de fichiers	
database	13/09/2017 07:28	Dossier de fichiers	
.lock	10/09/2017 10:58	Fichier LOCK	0 Ko
db.log	10/09/2017 10:58	Document texte	0 Ko
debug.log	15/09/2017 16:33	Document texte	18 693 Ko
peers.dat	15/09/2017 16:33	Fichier DAT	103 Ko
trezarcoin.conf	10/09/2017 17:09	Fichier CONF	3 Ko
wallet.dat	15/09/2017 16:33	Fichier DAT	1 592 Ko

Crypto ▸ Trezar ▸ wallet ▸ data

Fichier   Edition   Format   Affichage   ?

```
rpcuser=exemple
rpcpassword=password_exemple
irc=1
dns=1
qtstyle=1
daemon=1
server=1
stakegen=1
logtimestamps=1
minersleep=2000
stakemindepth=2800
stakemintime=72
stakecombine=40
stakesplit=80
port=17298
rpcport=17299
addnode=162.217.249.198:17298
addnode=46.4.0.101:17298
```

Your wallet is now ready :)

* Here's a list of nodes you might want to add to your trezarcoin.conf file to improve your wallet connectivity to the network:

addnode=185.213.210.221:53740
addnode=73.237.102.32:59777
addnode=47.208.105.74:11315
addnode=5.240.11.137:64425
addnode=176.159.112.85:59237
addnode=188.242.118.114:37285
addnode=5.44.169.46:49291
addnode=162.217.249.198:55383
addnode=116.100.160.65:64046
addnode=14.226.75.73:53267
addnode=80.110.114.112:7677
addnode=68.111.254.128:17298
addnode=93.115.61.74:50791
addnode=212.143.244.194:57699
addnode=91.202.46.63:57345
addnode=78.180.172.159:57469
addnode=178.165.68.219:17298
addnode=212.112.153.139:51318
addnode=213.27.32.68:61600
addnode=185.39.74.210:59297
addnode=109.232.227.133:63397
addnode=116.105.206.34:57699
addnode=188.243.232.224:62745
addnode=37.219.18.171:14620
addnode=178.188.184.241:60025
addnode=185.137.97.14:56448
addnode=90.20.156.87:63982
addnode=188.19.232.127:50003
addnode=75.109.71.168:50915
addnode=89.141.164.216:61425
addnode=201.1.80.41:49578
addnode=87.105.139.164:63662

addnode=180.211.175.181:17298
addnode=109.189.50.14:57087
addnode=64.199.25.9:54382
addnode=103.73.92.65:63184
addnode=171.6.242.22:64538
addnode=176.100.61.37:52541
addnode=110.20.75.83:58339
addnode=37.187.146.34:17298
addnode=178.203.233.245:1276
addnode=83.30.223.115:17298
addnode=85.93.59.50:2218
addnode=2.37.162.168:17298
addnode=178.251.219.166:63567
addnode=91.126.237.243:17298
addnode=84.234.52.190:42892
addnode=213.149.51.206:4081
addnode=217.129.212.100:50084
addnode=93.34.239.151:64047
addnode=94.54.4.218:4872
addnode=49.35.21.78:52955
addnode=85.140.113.81:64903
addnode=109.64.60.7:53070
addnode=ec2-35-182-231-94.ca-central-1.compute.amazonaws.com:17298
addnode=ec2-107-20-130-221.compute-1.amazonaws.com:17298
addnode=ec2-34-213-225-118.us-west-2.compute.amazonaws.com:17298
addnode=ec2-52-59-255-239.eu-central-1.compute.amazonaws.com:17298
addnode=ec2-54-252-216-76.ap-southeast-2.compute.amazonaws.com:17298

3

First of all, you will need your wallet adress. Launch your wallet, click on **Receive** to list your adresses. Just left click on it to be able copy and paste it where we will need it.
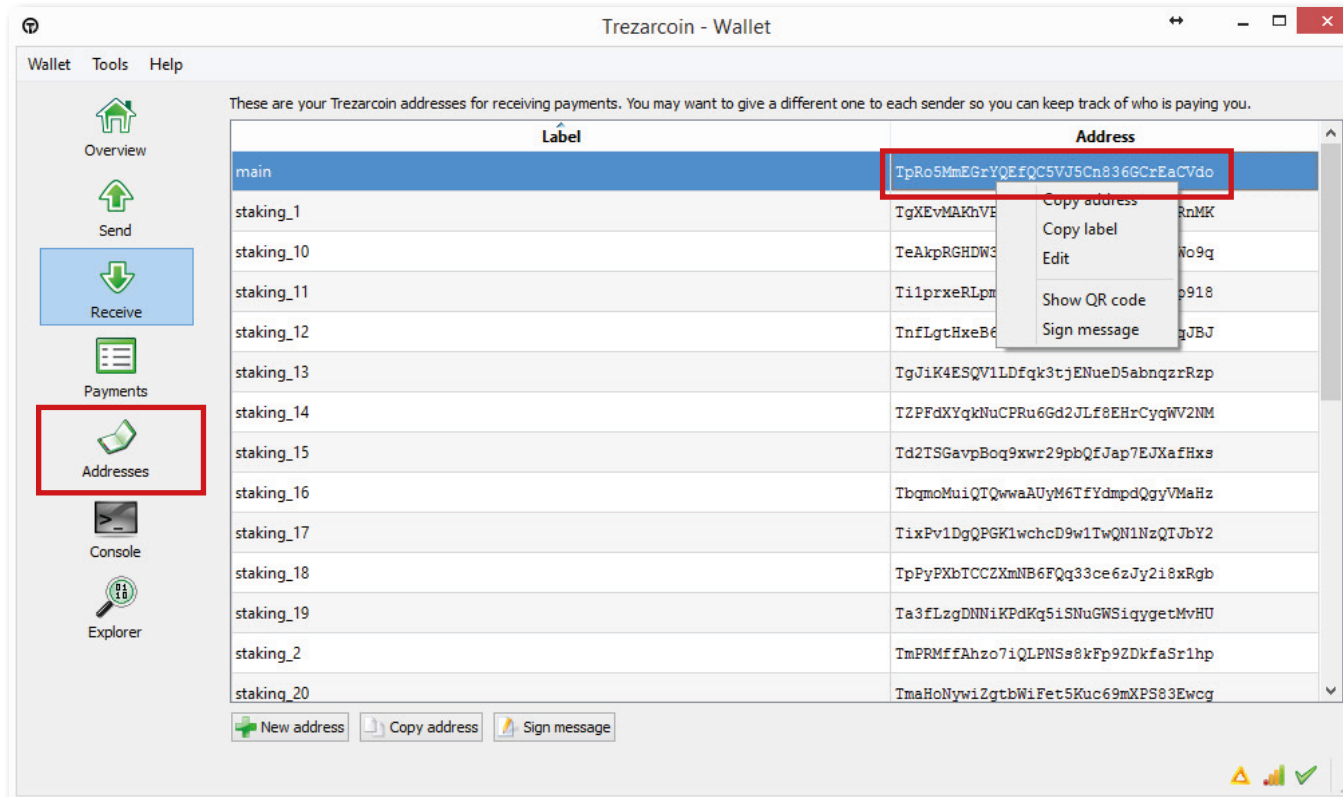
To be able to mine we will need a dedicated program called *miner*. You can mine on CPU and GPU but due to the different architectures the miner we are going to use depends of your hardware.

For mining on CPU: CPUminer or NSGminer

For mining on Nvidia GPU: CCminer (There is differents builds of CCminer, we will use the 2.2 one from tpruvot in this guide, feel free to try others and choose the one will perform the best on your rig).

For mining on AMD GPU: NSGminer

Notes: You shouldn't try to mine TZC with your CPU. A high end 8 cores/16 threads CPU will not be able to match a low cost GPU speed and its hundreds threads. It will cost you more than you will earn. Always remember mining cost power.

Create a start.txt file and edit it with notepad according to your wallet address and the miner you want to use:

NGSminer (AMD cards and CPU):

GPU
      Solo mining
      nsgminer 0 --neoscrypt -C --cpu-threads <nb of core> -o 127.0.0.1:17299 -O YOUR_USERNAME:YOUR_STRONG_PASSWORD

      Pool Mining
      nsgminer --neoscrypt -C --cpu-threads <nb of core> -o stratum+tcp://eu1.altminer.net:4233 -u YOUR_WALLET_ADDRESS -p=TZC

CPU
      Solo mining
      nsgminer 0 --neoscrypt -g -o 127.0.0.1:17299 -O YOUR_USERNAME:YOUR_STRONG_PASSWORD
      Pool Mining
      nsgminer --neoscrypt -g -o stratum+tcp://eu1.altminer.net:4233 -u YOUR_WALLET_ADDRESS -p c=TZC

CPUminer:

Solo mining
cpuminer-aes-avx2 -a neoscrypt -t 6 -o 127.0.0.1:17299 -u YOUR_USERNAME -p YOUR_STRONG_PASSWORD
Pool Mining
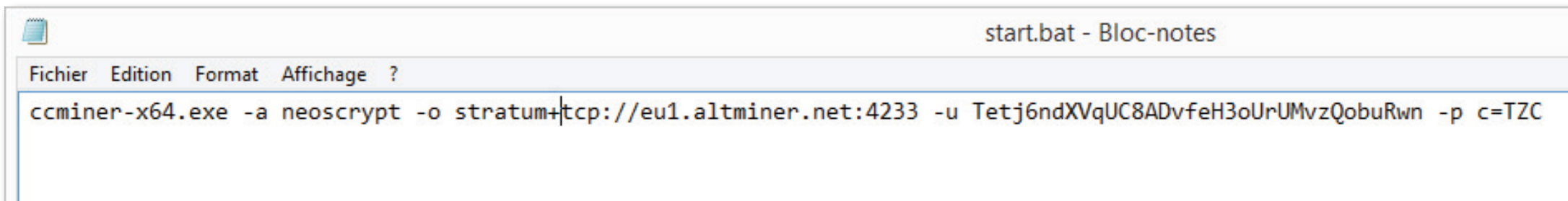cpuminer-aes-avx2 -a neoscrypt -t 6 -o stratum+tcp://eu1.altminer.net:4233 -u YOUR_WALLET_ADDRESS -p=TZC

CCminer (Nvidia Cards):

Solo mining
ccminer-x64.exe -a neoscrypt -o http://127.0.0.1:17299 -u YOUR_USERNAME -p YOUR_STRONG_PASSWORD
Pool Mining
ccminer-x64.exe -a neoscrypt -o stratum+tcp://eu1.altminer.net:4233 -u YOUR_WALLET_ADDRESS -p c=TZC

start.bat - Bloc-notes

Fichier   Edition   Format   Affichage   ?

```
ccminer-x64.exe -a neoscrypt -o stratum+tcp://eu1.altminer.net:4233 -u Tetj6ndXVqUC8ADvfeH3oUrUMvzQobuRwn -p c=TZC
```

Once edited, save it and change it's .txt extention to .bat. It'll tell Windows to execute it. Here's an exemple of the .bat file I'm using with CCminer.
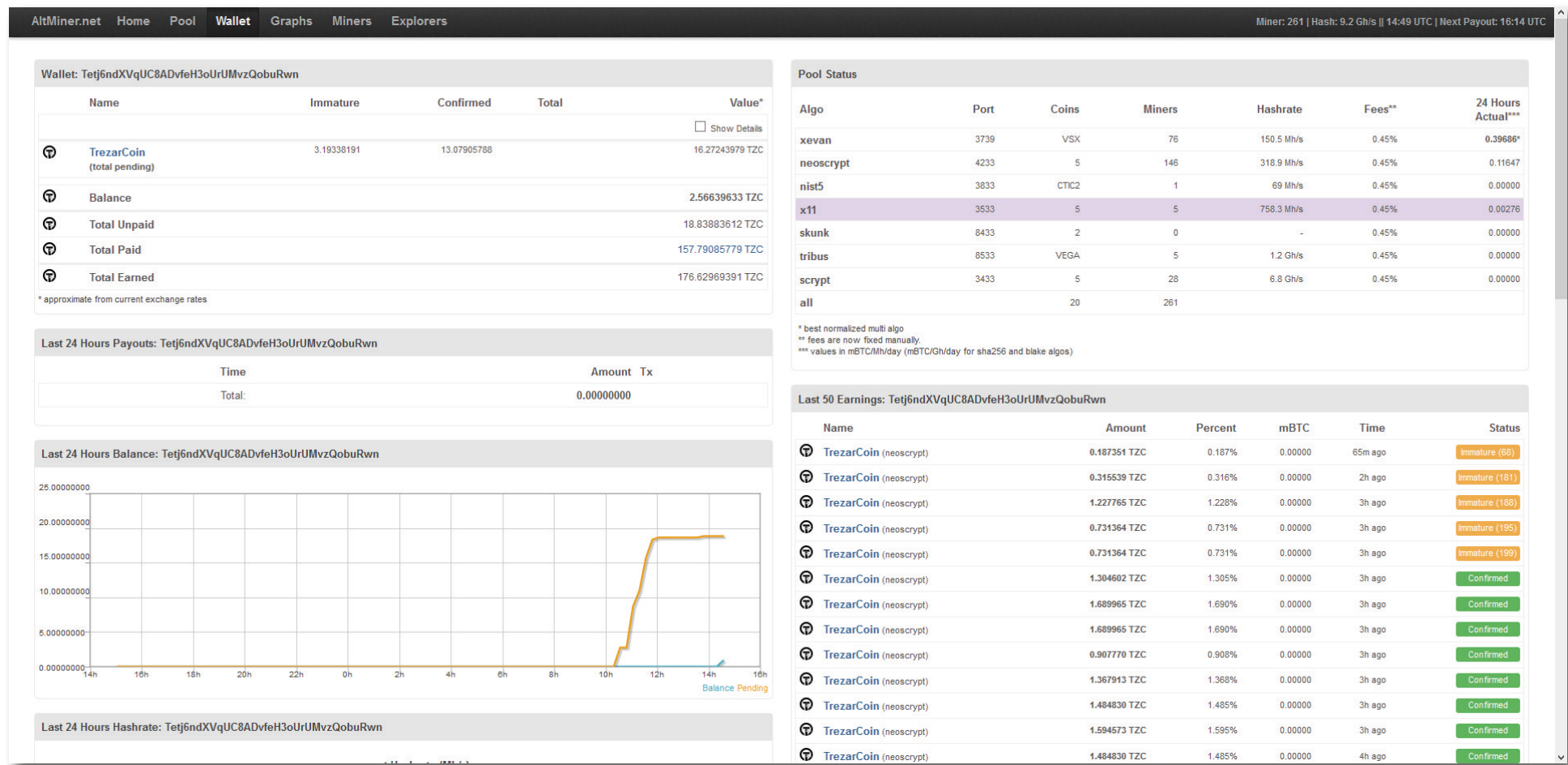
-a is the algorythm you're telling the miner to use.
- o is the address of the pool you're mining on. It's always provided by the pool itself.
- u is the user address. Here it's you're wallet address. It can also be an account.worker name, depending of the pool.
- p is your password. altminer doesn't use account, the password field is used to identify which neoscrypt currency is mined.

Once edited, and saved with the right .bat extention, execute it.

Your cmd window should look like this. You can check your accepted shares and your hashrate here. If shares are refused and/or if your hashrate is lower than expected, you should check your software configuration and your CPU/GPU temp.

AltMiner.net   Home   Pool   **Wallet**   Graphs   Miners   Explorers

Miner: 261 | Hash: 9.2 Gh/s || 14:49 UTC | Next Payout: 16:14 UTC

Wallet: Tetj6ndXVqUC8ADvfeH3oUrUMvzQobuRwn

Name	Immature	Confirmed	Total	Value*
				☐ Show Details
TrezarCoin (total pending)	3.19338191	13.07905788		16.27243979 TZC
Balance				2.56639633 TZC
Total Unpaid				18.83883612 TZC
Total Paid				157.79085779 TZC
Total Earned				176.62969391 TZC

* approximate from current exchange rates

Pool Status

Algo	Port	Coins	Miners	Hashrate	Fees**	24 Hours Actual***
xevan	3739	VSX	76	150.5 Mh/s	0.45%	0.39686*
neoscrypt	4233	5	146	318.9 Mh/s	0.45%	0.11647
nist5	3833	CTIC2	1	69 Mh/s	0.45%	0.00000
x11	3533	5	5	758.3 Mh/s	0.45%	0.00276
skunk	8433	2	0	-	0.45%	0.00000
tribus	8533	VEGA	5	1.2 Gh/s	0.45%	0.00000
scrypt	3433	5	28	6.8 Gh/s	0.45%	0.00000
all			20	261		

* best normalized multi algo
** fees are now fixed manually.
*** values in mBTC/Mh/day (mBTC/Gh/day for sha256 and blake algos)

Last 24 Hours Payouts: Tetj6ndXVqUC8ADvfeH3oUrUMvzQobuRwn

Time	Amount	Tx
Total:	0.00000000	

Last 50 Earnings: Tetj6ndXVqUC8ADvfeH3oUrUMvzQobuRwn

Name	Amount	Percent	mBTC	Time	Status
TrezarCoin (neoscrypt)	0.187351 TZC	0.187%	0.00000	65m ago	Immature (68)
TrezarCoin (neoscrypt)	0.315539 TZC	0.316%	0.00000	2h ago	Immature (181)
TrezarCoin (neoscrypt)	1.227765 TZC	1.228%	0.00000	3h ago	Immature (188)
TrezarCoin (neoscrypt)	0.731364 TZC	0.731%	0.00000	3h ago	Immature (195)
TrezarCoin (neoscrypt)	0.731364 TZC	0.731%	0.00000	3h ago	Immature (199)
TrezarCoin (neoscrypt)	1.304602 TZC	1.305%	0.00000	3h ago	Confirmed
TrezarCoin (neoscrypt)	1.689965 TZC	1.690%	0.00000	3h ago	Confirmed
TrezarCoin (neoscrypt)	1.689965 TZC	1.690%	0.00000	3h ago	Confirmed
TrezarCoin (neoscrypt)	0.907770 TZC	0.908%	0.00000	3h ago	Confirmed
TrezarCoin (neoscrypt)	1.367913 TZC	1.368%	0.00000	3h ago	Confirmed
TrezarCoin (neoscrypt)	1.484830 TZC	1.485%	0.00000	3h ago	Confirmed
TrezarCoin (neoscrypt)	1.594573 TZC	1.595%	0.00000	3h ago	Confirmed
TrezarCoin (neoscrypt)	1.484830 TZC	1.485%	0.00000	4h ago	Confirmed

Last 24 Hours Balance: Tetj6ndXVqUC8ADvfeH3oUrUMvzQobuRwn

Balance Pending

Last 24 Hours Hashrate: Tetj6ndXVqUC8ADvfeH3oUrUMvzQobuRwn

On altminer pool you can monitor your mining stats by following this address
https://altminer.net/?address=YOUR_WALLET_ADDRESS

:)

4

Staking (PoS) is an automatic process that'll start as soon as your inputs are mature. Still, we can optimize the maths by tweaking our trezarcoin.conf file. This guide isn't mean to provide a full tutorial about how to stake, which is depending both of how many coins you have and of the network PoS difficulty. We will simply provide some useful informations that will help you to set up everything for the best!

For staking, your wallet have to be open. The time before your inputs start to stake is related to your configuration file (by default, it's 24 hours). Once an input reach this time, your wallet will use it for staking. The more time you wait, the more your inputs weigh will increase and the more staking chance you'll get. The more coins you have and the longer they are on your wallet, the more chance you have to hit a PoS block. The maximum age for an input is 16 days. After this time, it'll stop increasing the total inputs weight. If you send a transaction from a staking wallet, every input time will reset to 0. So you should have a regular wallet and a PoS one (you can follow the Local Wallet + PoS Headless Wallet on VPS for setting up such configuration).

* Staking is based on luck and network difficulty. It's a game of patience. After an inmput is rewarded with a PoS block, is age is resetted to 0 and it'll have to wait at least 24 hours to be able to stake again.

* Additionally, if the input is bigger than the stakesplit value (default 400) and if its age is not at max (16 days) it'll split in two halfs. For exemple, if an input of 100'000 coins hit a PoS block before its coinage is 16 days, it'll split in two 50'000 and it's age will be resetted to 0.

* This autosplit does repeats until the value stakesplit in your trezarcoin.conf has been reached.

* The important value is your inputs weighting. Now, be patient :)
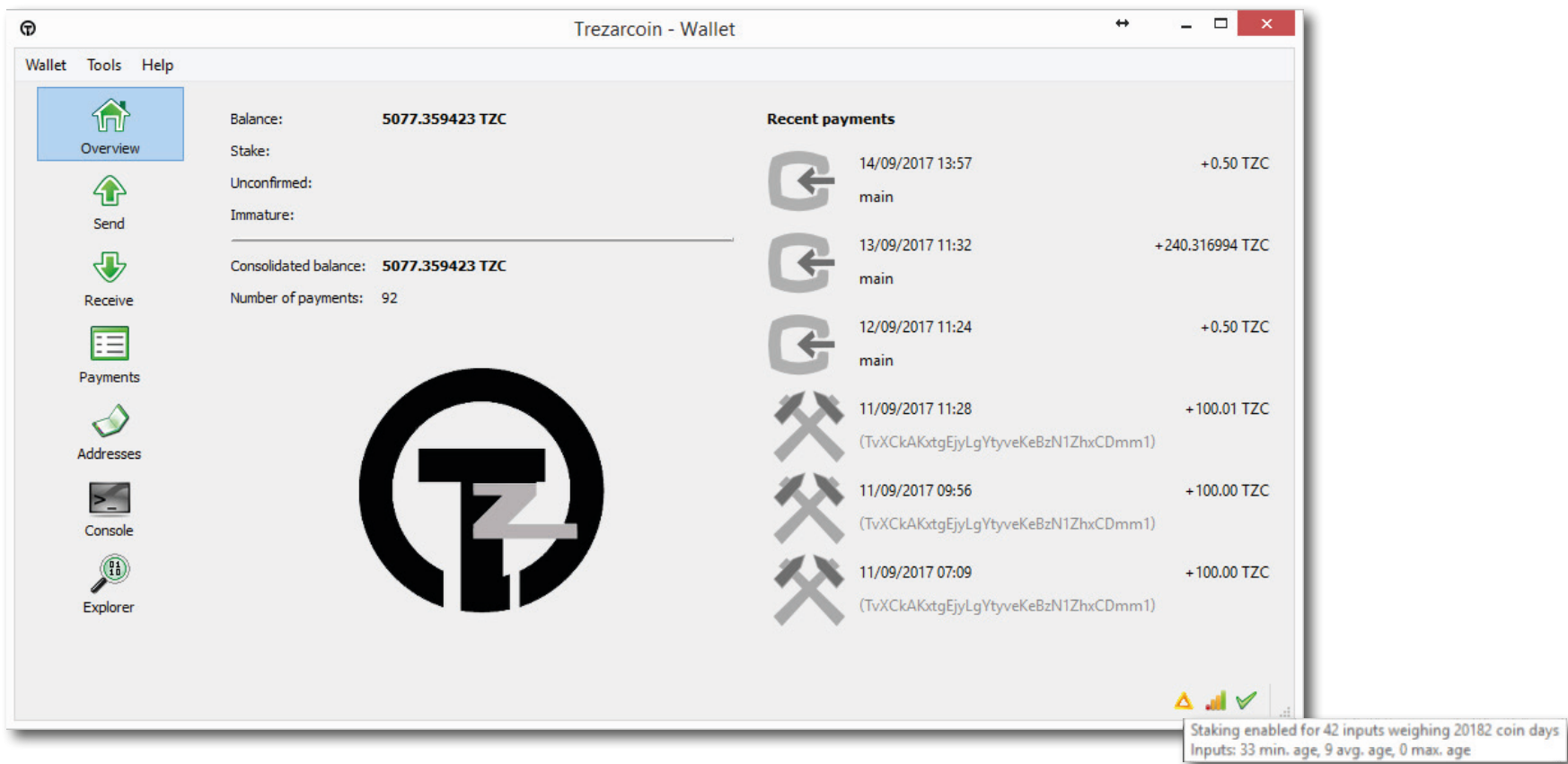
The grey icon on the bottom right of your wallet is your staking status. It'll turn yellow/orange when you'll have input staking. The time before it'll happen is related to your configuration file (by default, it's 24 hours).

If you fly your cursor on it, it'll show you your inputs weighting which is basically your PoS mining hashrate.

As you can see, the Faucet made me rich :D

Thanks to crofly and the community for the staking infos

Happy PoW/PoS mining :)