



## ColossusXT Staking Guide

This is a living document. The most current version can be found [here](#).

Welcome to the ColossusCoinXT project!

- Need some COLX? Head to [Crypto-Bridge](#), [Trade-Satoshi](#), or [Cryptopia](#).
- Need a wallet? Head to the ColossusCoinXT [wallet page](#), download, and install.

Now let's put those COLX coins to work and get some staking rewards!

This guide will explain all staking requirements in depth, however, for advanced users or for those already familiar with staking configuration, here are the primary COLX staking requirements:

- 1) Your ColossusCoinXT.conf file must contain "staking=1".
- 2) Your wallet must be online and synchronized.
- 3) Your wallet must encrypted and unlocked for anonymization and staking.
- 4) You wallet must hold COLX for 8 hours or more old.

If you've completed those four tasks, you're ready to stake! Relaunch your wallet and check the lower right corner. The staking status icon is the circle with an up arrow. Green means you're currently staking, and gray means you're not staking yet. (Sometimes it takes a minute or two after launching before the arrow turns green.)



If your staking arrow is **GREEN**, you're good to go! Congrats, you're now staking COLX, and will begin receiving staking rewards based on the amount of coins you have staked.

Ready to receive staking rewards? See the [Receiving Staking Rewards](#) section to see what staking rewards will look like and learn about orphan blocks!

Been staking for a while but still haven't gotten a reward? See [Calculating Your Staking Rewards](#).

Questions about coin splitting? Read the [Coin Splitting Guide](#).

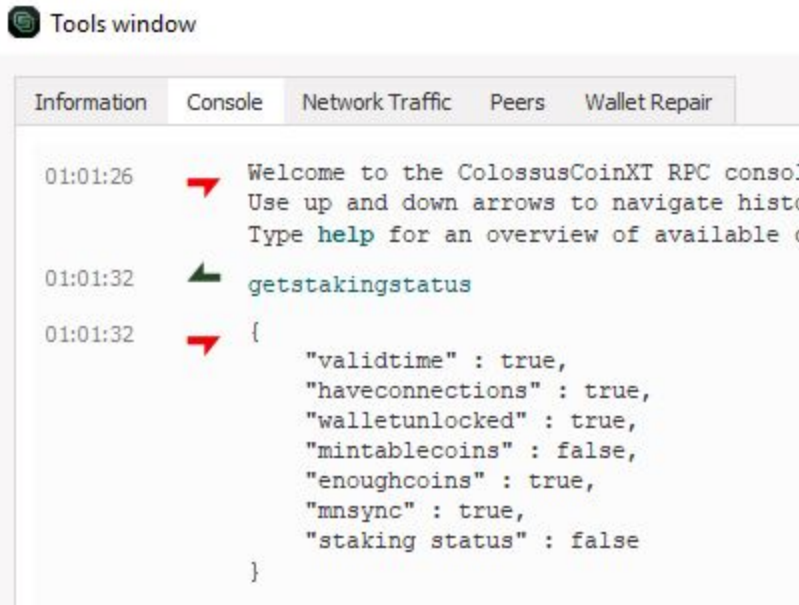
If your staking arrow is **GRAY**, there's a problem:



COLX staking is simple, but there are a lot of small requirements. Failure to meet one of the requirements is usually the reason you are not receiving staking rewards. Review each section and verify that you're meeting each requirement. Follow the directions given to fix any issues you encounter, and keep going until your staking arrow is green.

**Mac users:** This guide was written with Windows in mind but the Mac wallet is virtually identical. The main difference is that the menu items are on the menu bar at the top of the screen instead of the top of the wallet app, so look there when the File, Settings, or Tools menus are referred to. For any other significant differences, there will be a note labeled "**Mac users:**".

This guide contains information and fixes on every common staking issue. However, rather than check them all, let's start by seeing if we can skip straight to the problem! The COLX console includes a utility to help troubleshoot staking issues. Click Tools, Debug Console. This will open the COLX console. Type the command "getstakingstatus". This will give you an output with several `true / false` values:



A false on any of these properties will keep your staking arrow from turning green. The names of these properties are clues about what is wrong.

`validtime : false` usually indicates a synchronization issue. Skip to the section [Wallet must be synchronized](#).

`haveconnections : false` is also a synchronization issue. Again, skip to the section [Wallet must be synchronized](#).

`walletunlocked : false` indicates that your wallet is locked. Skip to the section [Wallet must be unlocked for anonymization and staking only](#).

`mintablecoins : false` indicates that you have no mature coins. See [Wallet must contain mature coins](#).

`enoughcoins : false` indicates that your balance is less than the "reserve" balance. (The COLX reserve balance defaults to zero, so this is never an issue.)

`mnsync : false` means that masternode data is not synched. Skip to the section [Wallet must be synchronized](#).

`stakingstatus : false` means that either one or more of the previous properties was false, or there is another issue. If this is the ONLY false, it usually means one of three things: First, perhaps you have not added "`staking=1`" to your config file. Skip to [ColossusCoinXT.conf must contain "staking=1"](#). Second, it could be that your wallet is unlocked, but you forgot to check the box that says "for anonymization and staking only". See [Wallet must be unlocked for anonymization and staking only](#). Last, sometimes the wallet simply fails to begin staking. Close

and reopen your wallet, unlock it for staking, and allow five minutes for it to begin staking.

After making a correction for one of these issues, close and reopen your wallet, and re-run the `getstakingstatus` command to confirm that all previous `false` flags are now marked `true`. Make one change at a time. Sometimes it will take a few attempts to get everything set to `true`.

Normally, fixing the issues flagged as `false` will quickly get your wallet staking. However, if you are still having issues, or just want to know more about COLX staking, read on for a more complete listing of possible issues and their fixes. There is also a guide for calculating staking rewards, and a guide for coin splitting.

## **COLX Staking Troubleshooting Table of Contents:**

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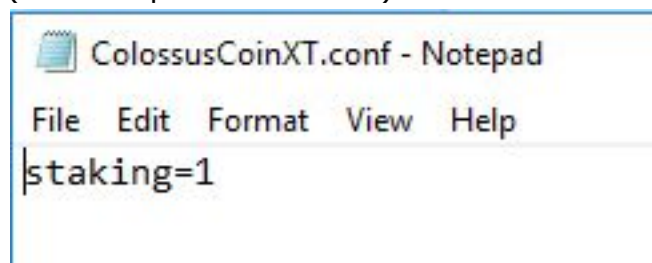
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**ColossusCoinXT.conf must contain "staking=1"**

This config file entry is required for staking. Click on Tools, Open Wallet Configuration File. Verify that the line "staking=1" is present. If it is not, add it (without quotation marks):



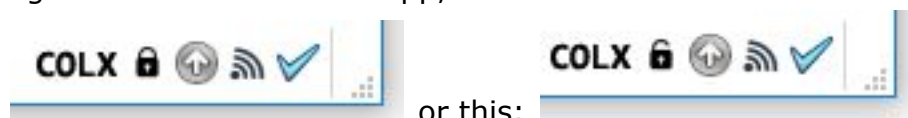
Save and close the file, and restart your wallet.

**Mac Users:** The default text editor on a Mac is Text Edit instead of Notepad. It functions very similarly.

**Note:** Sometimes the wallet fails to open the ColossusCoinXT.conf config file. If the config file doesn't open after clicking "Open Wallet Configuration File", see [Appendix A: Can't Open Config File](#).

## Wallet must be encrypted

Your COLX wallet must be encrypted to stake. Look for the padlock icon in the lower right corner of the wallet app, like this:



**(Note:** The presence of the padlock indicates wallet *encryption* status. Whether the padlock is open or closed indicates wallet *locking* status.)

If the wallet is not encrypted, the padlock icon will be missing entirely, like this:



This means that your wallet is not encrypted. Click on Settings, Encrypt Wallet. You will be prompted to create a password, and will receive a stern warning about password safety. Be sure that your password is safe and secure, and click OK. The app may appear unresponsive for up to a minute as it encrypts your wallet. Be

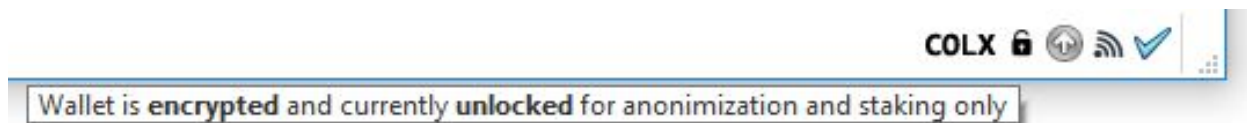
patient. When it is complete, the wallet will notify you that it needs to close. Restart the wallet and verify that you now have the padlock icon in the lower right.

## Wallet must be unlocked for anonymization and staking only

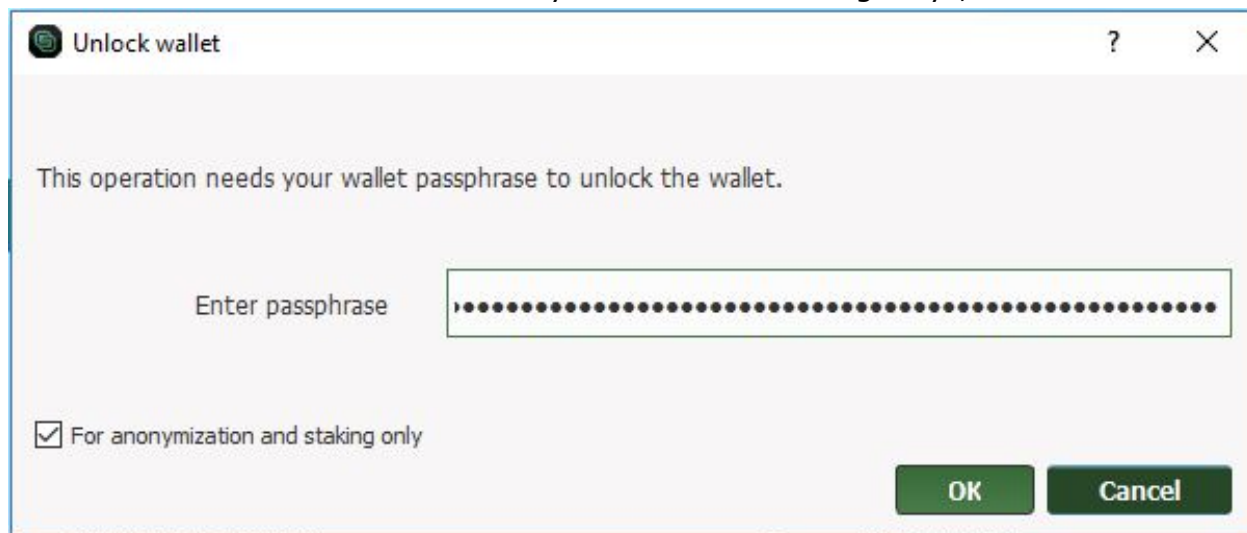
A locked wallet cannot stake COLX. This is indicated by the padlock icon in the lower right corner of the wallet app. (If the padlock icon is missing, the wallet is not encrypted. See previous section.) An open padlock is an unlocked wallet; a closed padlock is a locked one. Look carefully; the difference is only a couple of pixels. The padlock on the left is locked; the padlock on the right is not.



Hover over the lock icon for additional details. A correctly configured staking wallet will say "Wallet is encrypted and currently unlocked for anonymization and staking only":



If this is not the case, click on Settings, Unlock Wallet. Enter your password and click the checkbox marked "For anonymization and staking only", and click OK.

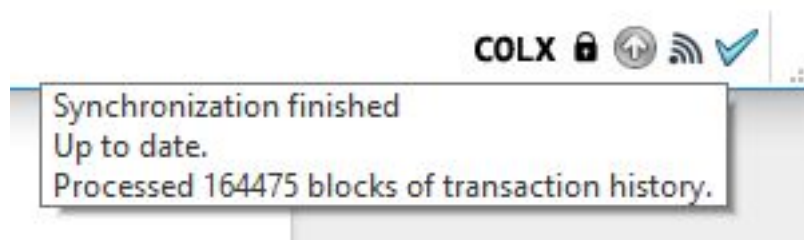


Check the padlock icon to verify that it's now unlocked, and hover over the padlock icon to verify that it's unlocked for staking and anonymization.

**Important Note:** The wallet app **ALWAYS** locks your COLX wallet by default every time the wallet is opened. This unlocking step will **always** need to be repeated, EVERY time your wallet or PC are restarted!

## Wallet must be synchronized

Check the lower right corner of your COLX wallet. If it's correctly synchronized, there will be a blue check mark. Hover the mouse over the blue check mark to verify that it says "Synchronization Finished. Up to date." and displays the current block number, like this:



If your wallet is not synchronized, it might look like this:



The red radio dish, "0 active connections" message and "No block source available" error indicates that there is no connectivity to the COLX network. Be patient! Usually this will resolve itself on its own by generating its own node list using the hardcoded seed nodes. Within 3-5 minutes, it should look like this:



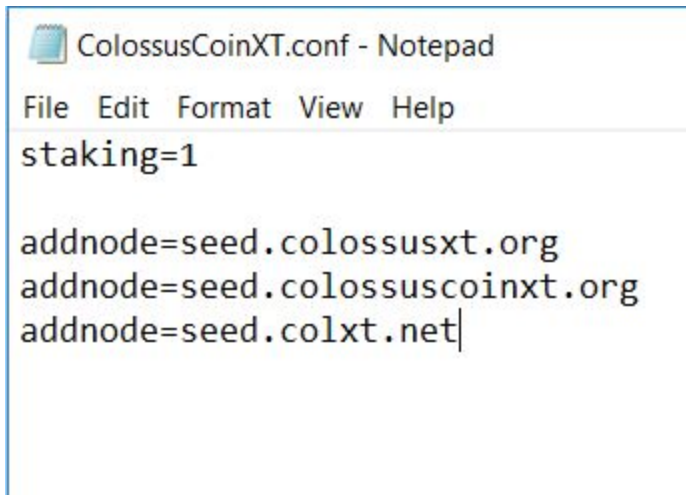
Hovering over the yellow circle arrows icon will give you the synchronization status and the current block number. Synchronization can take anywhere from a few minutes to several hours, depending on your internet connection. Once the yellow circle arrows turn to a blue check mark, synchronization is complete.

Sometimes the wallet fails to begin synchronization on its own. This is usually because it cannot contact any nodes. To correct this, you will need to manually add nodes. The easiest way to do this is to edit your ColossusCoinXT.conf file. In the wallet, click on Tools, Open Wallet Configuration File. (Note: Sometimes PCs fail to open this config file. If the file does not open, see [Appendix A: Can't Open Config File.](#))

Copy the following seed node entries, and add them into your config file.

```
addnode=seed.colossusxt.org  
addnode=seed.colossuscoinxt.org  
addnode=seed.colxt.net
```

Your config file should now look like this:

A screenshot of a Notepad window titled "ColossusCoinXT.conf - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text content of the file is as follows:

```
staking=1  
  
addnode=seed.colossusxt.org  
addnode=seed.colossuscoinxt.org  
addnode=seed.colxt.net|
```

Save and close the file, then stop and start the wallet. Wait a few minutes, and you should now see synchronization begin.

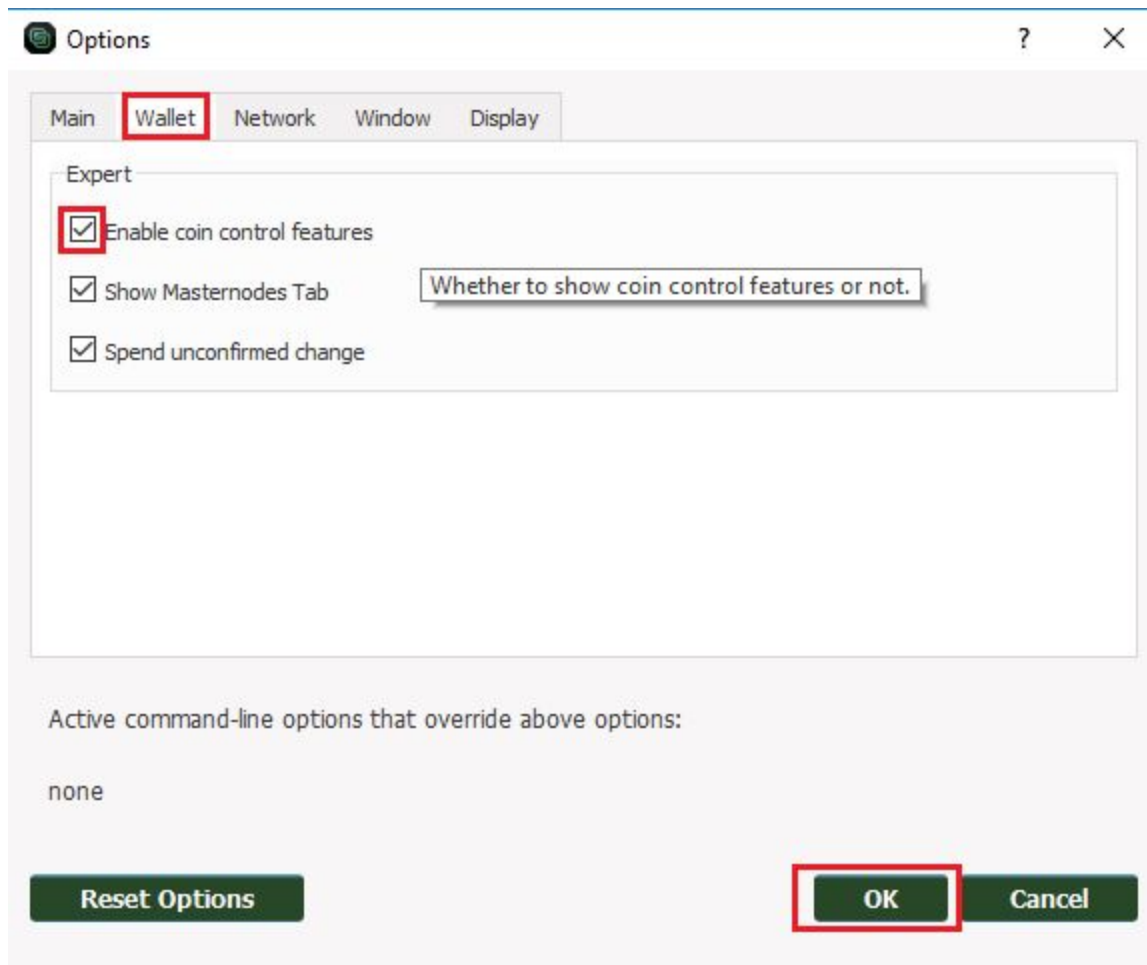
If synchronization does not start after 5 more minutes, you may have a network connectivity issue. See [Appendix B: Firewall Configuration.](#)

## Wallet must contain mature coins

COLX staking requires that coins be held for 8 hours before staking can begin. To check if your coins are mature enough, click on Send, and then Inputs. If the Inputs button isn't available, then you need to turn on Coin Control. To do that, click on



Settings, Options, Wallet, and check the box for “Enable coin control features”, then restart your wallet. **Mac users:** On a Mac, access the coin control option from the menu bar at the top of the screen, under PIVX Core, Preferences, Wallet.



From the Inputs screen, you can see all of your coins, their addresses, and the number of confirmations each transaction has. At 1 minute per block, 8 hours is equal to 480 confirmations. Check the confirmations column for each input and verify that the confirmation count exceeds 480. If it does, you are good to go. If it does not, then all you need to do is wait.



## Coin Selection

Quantity: 0

Amount: 0.00000000 COLX

Fee: 0.00000000 COLX

After F

Bytes: 0

Priority: none

Dust: no

Change

(un)select all

toggle lock state

☐ Tree mode

☒ List mode

	Amount	Received with label	Received with address	Confirmations
<input type="checkbox"/>			D...	6294
<input type="checkbox"/>	1250.00000000	Split	D...	420
<input type="checkbox"/>	1250.00000000	Split	D...	420
<input type="checkbox"/>	33.03341630	(change)	D...	420

In this wallet example, one input has more than 480 confirmations. It will take another hour for the remaining coins to mature.

**Note:** You don't need to leave your wallet open while waiting for coins to mature. Additionally, closing your wallet will NOT reset coin maturity. Confirmations continue to take place whether or not your wallet is online. Once you reopen your wallet, it will synchronize and you'll see all the confirmations that took place while you were offline.

## Receiving Staking Rewards

Now that you're staking COLX, you'll begin to receive COLX rewards. Rewards will appear on the main "Overview" screen of the COLX wallet as recent transactions:

### Recent transactions



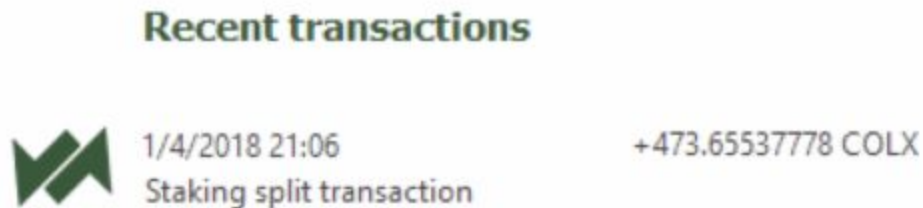
1/19/2018 15:30

+473.65537778 COLX

(DPsok [redacted] P7GSsdQk [redacted] M [redacted] bR)

The double-green arrow signifies a staking reward. This is a reward of 473 COLX.

Note the address below the transaction. This is the address of the input that received the reward. In the above example, the address itself is displayed. However, if the address has a label from a previous transaction, that label will be displayed. For example, this is a staking reward awarded to an input address that I labeled when I split my coins:



This can sometimes be confusing depending on how your inputs are labeled, so keep in mind that this is just a random selection of your input address labels from previous transactions.

Every now and then, you may see a staking reward transaction that is grayed out, with the amount in brackets:



This is what's known as an "Orphan Block" reward. Hover the mouse over this transaction to see additional details.

Orphan blocks are normal part of blockchain technology and are nothing to worry about. When you see an orphan block transaction, it means that your wallet and another COLX wallet attempted to create the same block. The network automatically voted to resolve this conflict, and your wallet lost the vote. It's always disappointing to see a transaction that won't pay off, but this is a normal part of staking. Remember, this will not affect your holdings, your coin maturity, or your staking status. Your wallet will continue staking normally with no interruption.

## Calculating Your Staking Rewards

COLX staking is a random raffle reward system. Each block is a drawing, each coin you stake is a ticket, and you're competing with everyone else who is staking COLX.

So, depending on how many coins you have, it can take a while to receive a staking reward. There is a component of luck, but you can calculate your average reward time based on a few key factors.

Let's call your number of personal staked coins "**P**". This is the number of mature coins (10,080 or more confirmations) in your own personal staking wallet.

Let's call the total number of staked coins "**T**". This is the total number of COLX currently staked by all COLX holders worldwide. You can get the exact number from the COLX block explorer [here](#). Hover your mouse above the blue section of the staking donut graph to see the current COLX stake count. As of writing this guide, the current T number is 4,647,574,253.

There are **1,440** (60 minutes \* 24 hours) blocks per day.

Thus, we can calculate an average staking reward time using this equation:

**COLX Rewards Equation:**  $T / (P * 1440) =$  average number of days per reward.

The inverse of this number,  $(P * 1,440) / T$ , is the daily odds of being rewarded.

So, for example, let's say you're staking 840,000 COLX. Your average staking reward time can be calculated by  $4,647,574,253 / (840,000 * 1,440)$ . This equals about 3.84. Thus, you'll get a reward, on average, every 3.84 days.

The inverse,  $(840,000 * 1,440) / 4,647,574,253$ , equals about .26, meaning that every day, you have a 26% chance of receiving a staking reward.

This answers the "how often?" question, but what about the "how much" question? The current total block reward is 1000 COLX per block. That 1000 COLX is split between the masternode holders and stakers, with an additional 5% taken for COLX budget development proposals. The amount each group gets is determined by the "see-saw mechanism" to encourage a healthy balance of masternodes and stakers. Currently, the dev fund gets 50 COLX per block, the masternode reward share is 570, and the staking share is 380. However, if the number of stakers drops, the staking share would increase to attract more stakers. If the number of masternodes drops, the masternode share would increase.

## Coin Splitting Guide

As of April 28th, 2018, the staking coin maturity requirement was reduced from 7 days, or 10,080 confirmations, to 8 hours, or 480 confirmations. One benefit of this change is that coin splitting is no longer necessary to optimize staking payouts. As such, it is no longer recommended that users split staking coins into smaller inputs.

However, there is still some automatic coin splitting taking place. Staking coin inputs are automatically split in half when a staking reward is received.

The COLX wallet has a built in limit on the this automatic coin splitting. By default, this limit is 2000; rewarded staking inputs will not be split into outputs smaller than 2000 COLX.

Users should consider setting this threshold to a higher number (100K - 1M) to avoid having to manage too many small inputs, which can lead to higher transaction fees when the coins are moved at a later date.

To change this setting, click Tools, Debug Console. In the console window, you can type `"getstakesplitthreshold"` to view the current splitting threshold setting. To change the setting, use the command `"setstakesplitthreshold"` followed by the desired number. The maximum threshold value is 999,999.



Tools window

```
Information Console Network Traffic Peers Wallet Repair
00:26:43 Welcome to the ColossusCoinXT RPC console.
          Use up and down arrows to navigate history, and Ctrl-L to
          Type help for an overview of available commands.
00:26:49 getstakesplitthreshold
00:26:49 {
          "split stake threshold set to " : 2000
        }
00:26:53 setstakesplitthreshold 10000
00:26:54 {
          "split stake threshold set to " : 10000,
          "saved to wallet.dat " : "true"
        }
```

**Note:** Your wallet needs to be unlocked to change this setting.

## Appendix A: Can't Open Config File

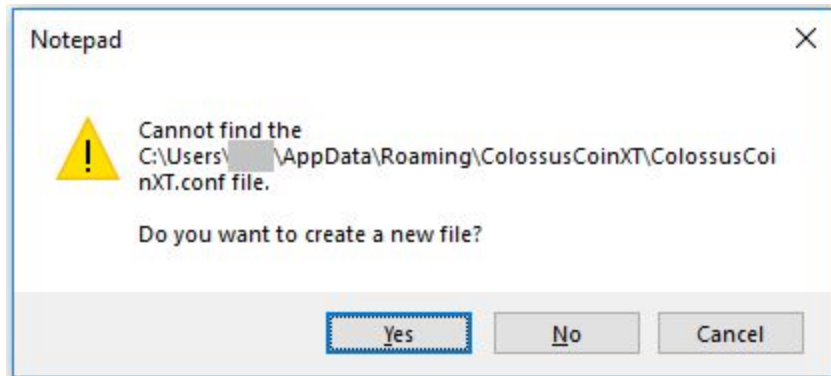
There are a few obnoxious obstacles with editing the ColossusCoinXT.conf file.

In on both OSX (Mac) and Windows, the default location of the config file is a hidden directory, the file is absent until opened for the first time, and the OS sometimes doesn't know what to do with files that have a .conf extension, leading to errors and confusion.

In Windows, the best way to get around this is to open this file in the editor directly from the command line: Right-click the Start button, click "run", paste this command, then click OK :

```
notepad %appdata%\ColossusCoinXT\ColossusCoinXT.conf
```

You may get an error saying that the file does not exist:



Click "Yes" to create the file.

When you're done editing the file (adding `staking=1` or adding nodes), click File, Exit, and "Yes" to save.

**Mac users:** On a mac, the best way to open this file directly in the editor is to open this file in the editor directly from the command line: Click the search (magnifying glass) icon in the upper right corner of the screen. Type "terminal" and press Enter to launch the OSX command prompt. Paste this command and press enter:

```
open -e Library/Application\ Support/ColossusCoinXT/ColossusCoinXT.conf
```

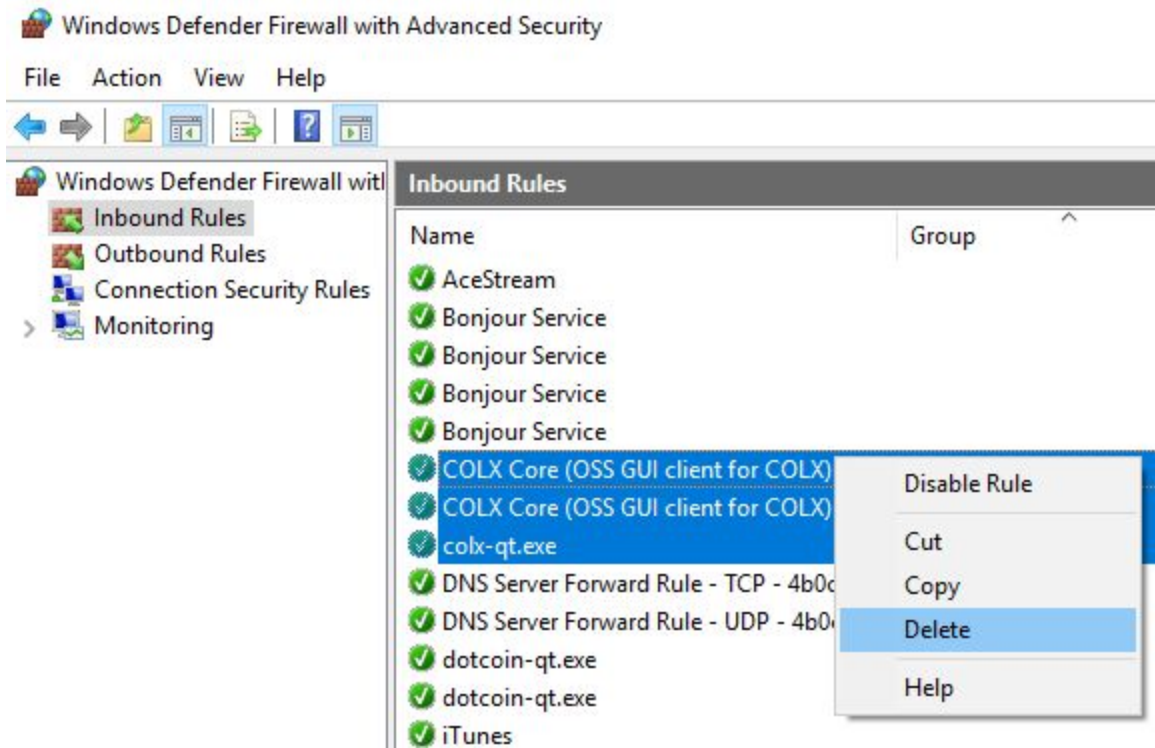
This will open the file in the Text Edit editor. When you're done editing the file (adding `staking=1` or adding nodes), simply close the editor. It will automatically save the file.

## Appendix B: Firewall configuration

On Windows and in OSX (Mac), a prompt comes up the first time the Wallet app is launched. If you clicked through it without selecting the correct settings, you can have firewall issues which prevent your wallet from synchronizing.

This guide assumes that you are using the built-in firewall apps for Windows and OSX. If you're using an alternative product, study these steps and replicate them within the product you are using.

For Windows machines, first, close your COLX wallet. Then, right-click the Start button and click "run". Type `wf.msc` and click OK. This will launch the Windows firewall app. Under Inbound rules, locate and select the three rules associated with COLX. Right-click these rules and click "Delete". Click "yes" on the "are you sure?" prompt, and close the firewall app.



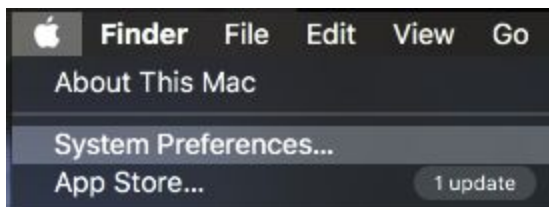
Relaunch your COLX wallet, and wait for the Windows Defender Firewall prompt. Ensure that both "public" and "private" are checked, and click Allow Access.



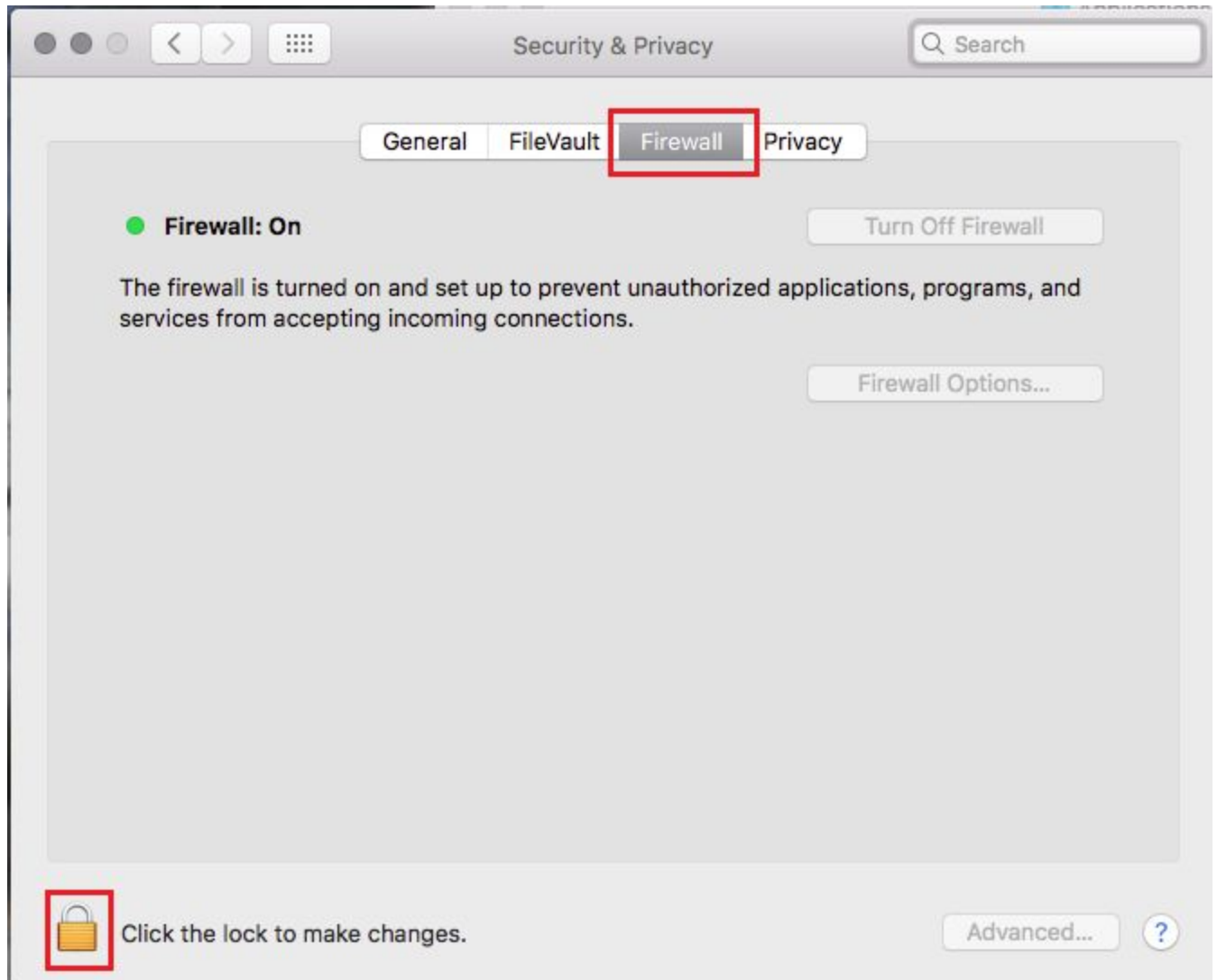


Exit and relaunch the COLX wallet. If everything else is configured correctly, your wallet should now begin to sync.

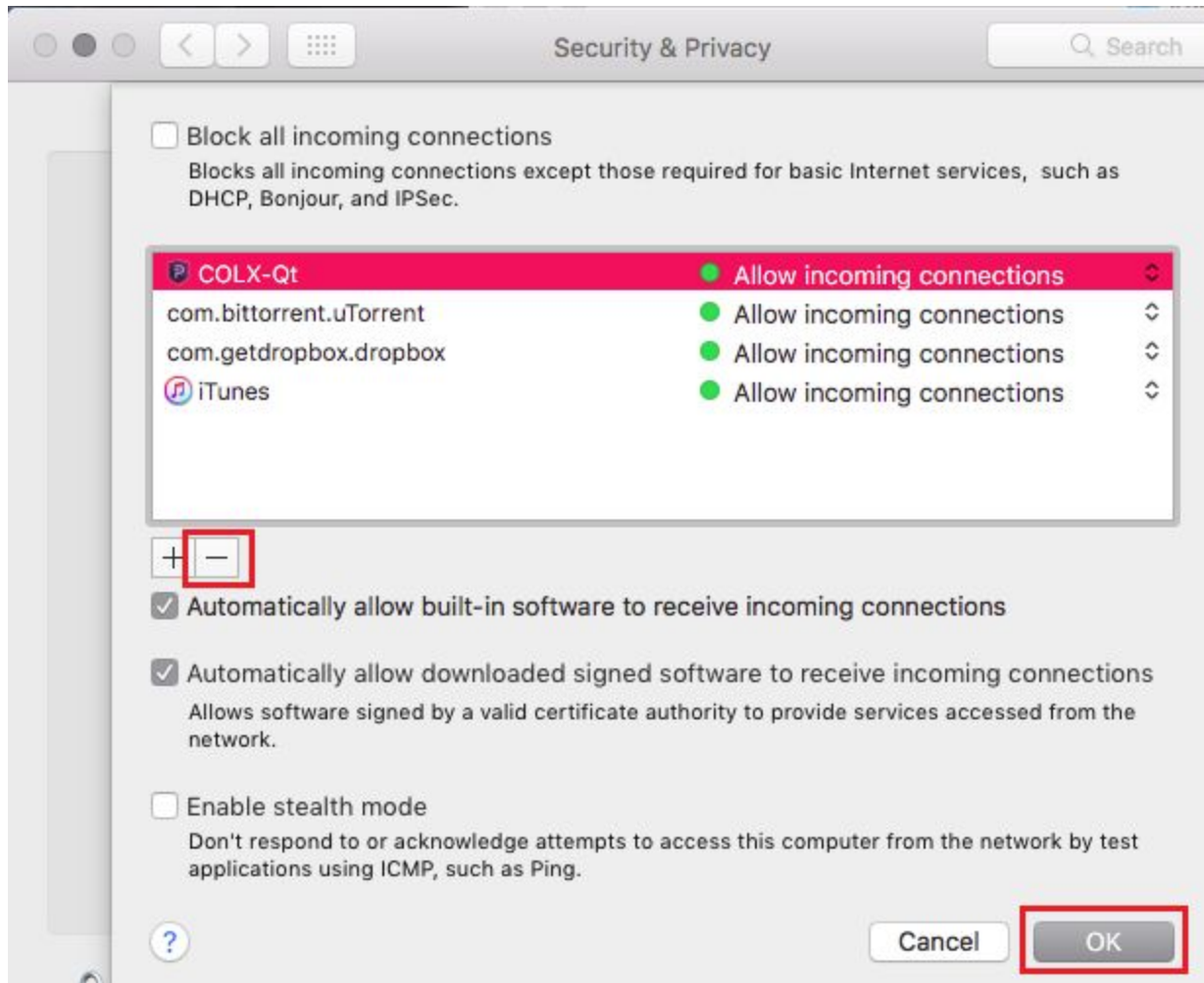
**Mac Users:** Click the Apple icon in the upper left corner, then click System Preferences:



Double-click the "Security and Privacy" icon, then click the "Firewall" button. Click the "Unlock" button, and enter your password:



Click the "Firewall Options" button now that it's enabled. Select the rule for COLX, then click the minus button to delete it, then click OK.



Close out of the security settings, then close and restart your COLX wallet. You should now be prompted to allow COLX-Qt-app to accept incoming connections. Click "Allow". Exit and restart your COLX wallet. If everything else is configured correctly, your wallet should now begin to sync.

## Additional Resources

If you have any additional questions or staking issues, or would like to provide feedback or suggestions for this document, please reach out to us in #general-support on the ColossusXT Discord:

<https://discord.gg/aHJKFaX>