

DeVault

INFORMATIONAL DOCUMENT

Cold Rewards

V2 01/20/2020



COMMUNITY DRIVEN ECONOMY



To Learn More Visit: www.DeVault.cc

#devault

TABLE OF CONTENTS

SIMPLE EXPLANATION OF COLD REWARDS.....3

TECHY EXPLANATION OF COLD REWARDS5

SIMPLE EXPLANATION OF COLD REWARDS

SUMMARY

Cold Rewards is a system to incentivize coin holders to hold coins for at least a month in the same address. Doing so, they contribute to a lower sell pressure and should therefore be incentivized. Hence; Cold Rewards. How many coins does one receive by merely holding? This changes yearly and starts at 15% annualized. Monthly? In the first year it's 1.25% . So let's say Pete holds 100k DVT in his address and doesn't spend any, the following month (21,915 blocks) he receives 1.25% in Cold Rewards leading to a total balance of 101,250 coins, or 1,250 coins in Cold Rewards.

CONSTRAINTS

Cold Rewards pays out coins only to unspent transactions (UTXOs). What are UTXOs? The analogy to **UTX0 transaction model** would be paper bills which you have in your wallet. In order to make a transaction of say, 1,000 bucks, your wallet should have at least 1,000 bucks in total (after summing up all the bills). You can imagine each of these bills as a UTX0. If you have a 10, and you get change for two 5s, you still have 10, but it's no longer in one UTX0. At each new block, all of the valid UTXOs will be evaluated for possible ColdReward payout. The unspent transactions eligible for Cold Rewards must come from "regular" transactions. Mining rewards or previous Cold Rewards are not be eligible. To calculate Cold Rewards, two things are taken into consideration: (1) the difference between current BlockHeight (the block number) and the BlockHeight when the UTX0 was created (let's call this coin age) and (2) the BlockHeight when the UTX0 got a reward last. The coin address (UTX0) that is going to be rewarded (first) will be the one with the highest 'coin age'. If it so happens that multiple addresses have the same coin age the largest one will get paid out.

MINIMUM REQUIREMENT(S)

25,000 DVT

21,915 blocks of holding

NOTE: There is a limit to the number of rewards that can be received. To avoid people from exploiting the rewards by putting `too much` at one address. This might be helpful against cold wallets from exchanges which could rack up a lot of coins by doing so.

HOW TO CONSOLIDATE DVT INTO ONE UTXO

Now you know that your DVT must be stored in one UTXO of 25,000 DVT or greater to accumulate Cold Rewards. And you know that if you mined DVT, the payout you got from your mining pool is not eligible. So how do you make it eligible? Easy, there are actually 2 ways to go about this:

(1) In your DVT wallet a Tab has been added, called `ColdRewards`. Click on it. You can click on `Reward Details/Select Coins` next. Now you can select the inputs you want to consolidate. Best practice is to consolidate rewards that are relatively near in terms of `Reward Maturity`. Press `X` after selecting the inputs. All that is left now is filling in the address you want to `Consolidate To` and press send. Consolidating is nothing else than combining inputs into a transaction, therefore a fee will be used.

(2) In your DVT wallet, open the Settings menu, and click on Options, and then the Wallet tab. Check the box to Enable coin control features and then click okay. Click on the Receive button. Enter "Cold Rewards" or whatever you want as the Label. Then click the New Address / Request Payment button. A pop-up window shows up with a QR code. Click the Copy Address button. Now click Send. Paste your new address into the Pay To field. Click on the Inputs button on the top and click on Tree mode. The address that your mining pool is sending your payouts to should be visible there. Check the box next to it. Enter the amount (greater than or equal to 25,000) that you want to set aside for Cold Rewards, and click Send. You're done! You've consolidated your coins into one UTXO, and as long as you don't spend coins from that UTXO, you will receive Cold Rewards in about one month (after 21,915 new blocks have been created). Using the Inputs button and selecting List mode, you can see how many blocks have passed since you consolidated your coins. It's listed in the Confirmations column.

TECHY EXPLANATION OF COLD REWARDS¹

Cold Rewards System Description

NOTE

Cold Rewards are not generated for Coinbase transactions - which means that mining rewards, generated budget payments, and cold rewards themselves will not generate Cold Rewards. You must move these to either another address or create a transaction to the same address to get rewards. See above for instructions on consolidating transactions.

Overview

Cold Rewards are a way for coin holders to get rewarded for merely holding coins for approximately one month or more. The ROI is based on a scale that changes yearly and starts at 15% annualized. The wallet doesn't need to be kept open to get these rewards and action is generally not required (except by miners). There is a minimum balance of 25,000 DeVault needed at an unspent transaction output (UTXO). A transaction from an exchange or another person of greater than 25,000 DeVault will achieve this. Please read below for more details.

Constants

This is a list of constants used in this system

- ✓ BlocksPerYear - Estimated number of blocks in 1 year
- ✓ PerCentPerYear - Percentage return for Cold Rewards, currently changes each year from 15,12,9,7,5 %
- ✓ nMinRewardBlocks - Rewards occur no more frequently than this
- ✓ nMinRewardBalance = 25000 * COIN
- ✓ nMinReward = 312.5 * COIN - Only pay out reward if it's bigger than this

¹ Source: [Github](#)

Description

Cold Rewards pay out coins to unspent transactions (UTXOs) that are greater than a minimum (nMinReward coins) and are older than approximately one month (nMinRewardBlocks number of blocks). NOTE: Addresses are not evaluated by total amounts, each separate UTXO is considered.

These unspent transaction must come from regular transactions. Either miner rewards or previous cold rewards will not counted--coinbase outputs are ignored.

At each block, all of the valid UTXOs will be evaluated for possible reward payout. We use a concept of "differential" height to determine viability. The "differential" height is the difference between the current block number and either 1) the block number when this UTXO was created or 2) the block number when this UTXO last got a rewards payout. For the 1st payout, we will use method 1 and afterwards, method 2. The coin address that will be rewarded will be the one with the biggest differential height, provided that the calculated reward is greater than (nMinReward).

If multiple UTXOs have the same differential height, the one with the largest balance will get paid out. If several UTXOs have the same differential height and payout amount, then payout will be based on sorting the COutputs

Payout Amount

PerCentPerYear determines the effective rate of return for payouts over 1 year. By dividing this by BlocksPerYear we'd get the return per block (a very small number). We then multiply this by the "differential" height mentioned before to get the fractional return. We multiply by the balance at this UTXO to get the actual reward. Finally, we quantize the reward to 1/10ths of a COIN for accounting simplicity and make sure it's greater than nMinReward to be considered valid.

Invalidating Rewards

For a given UTXO, once rewards are considered valid (given conditions already mentioned), they will be continued to be paid out as long as the UTXO itself is not spent. Once the UTXO is spent, rewards will cease. This mechanism allows you to collect rewards and spend the actual rewards themselves since they will be at new UTXOs that will not be considered valid for rewards since they are coinbase transactions. To do that, you can use "Coin Control" feature within the wallet. If you want the rewards to earn rewards in return, you'd also need to use coin control to send the rewards using a regular transaction to any one of the addresses under your control. However,

keep in mind that for UTXOs to be considered valid, they must have more than `nMinRewardBalance` amount. If you have more than that amount at one address but they are spread out across many UTXOs, you may not get rewards at all. You can use coin control to view your UTXO holdings.