

StakeCompound - 1.0.0

Summary

This contract is a companion contract to the main stake contract. It ensures compounding the rewards and profit share is done properly.

Parameters

Parameter	Description	Type	Default
imPaideiaDaoKey	Token ID of the dao config nft	Coll[Byte]	
stakeStateTokenId	Token ID of the stake state nft	Coll[Byte]	

Registers

Register	Description	Type
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Assets

Token name	amount
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Transactions

Transaction name	Transaction description
StakeCompound	In this transaction 1 or more stakerecords is updated with rewards according to their current stakerecord

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Context Variables

CV Index	Type	Description
0	Coll[Byte]	Proof for retrieving current DAO Config values
1	Coll[(Coll[Byte],Coll[Byte])]	AVLTree update operations to be performed
2	Coll[Byte]	Proof for fetching the current stakerecords
3	Coll[Byte]	Proof for fetching snapshot data related to the stakers being updated
4	Coll[Byte]	Proof for removing the stakers being updated from the list of stakers that need to be updated
5	Coll[Byte]	Proof for fetching snapshot governance participation data related to the stakers being updated
6	Coll[Byte]	Proof for performing the update operations

Config

Config key	Type	Description
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im.paideia.contracts.staking.compound	PaideiaContractSignature	Signature of the stake compound contract
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Inputs

Utxo type	Description
StakeState	The utxo containing the staking state
StakeCompound	The utxo ensuring proper execution of calculating the compound

Data Inputs

Utxo type	Description
DAO Config	Config utxo of this DAO

Outputs

Utxo type	Description
StakeState	The utxo containing the updated staking state
StakeCompound	A copy of the input utxo
Miner	Miner fee

Conditions

1. DAO Config input is correct
2. Stake state input is correct
3. The rewards provided in the update operations match expectations
4. Staked token amounts are correct in the output
5. Snapshot is updated correctly by removing handled stakers
6. New stake state AVLTree digest matches expectations
7. Stake compound is copied into new utxo
8. Prevent spam attack by ensuring a minimum amount of stakers is handled, or this is the last batch of stakers to be handled
9. The current profit in the stake state is updated according to distributed profit
10. Register values not relevant to this action in the stake state are unchanged