

# StakeState - 1.0.0

## Summary

The main state contract. To reduce size and complexity most logic is stored in companion contracts.

## Parameters

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

## Registers

Register	Description	Type
R4	AVLTree values with the following use: 0. Current stake state 1. Current participation state	Coll[AVLTree]
R5	Long values with the following use: 0. Next emission time in ms 1. Total governance tokens Staked 2. Amount of stakers 3. Amount of times voted 4. Amount of voting power used 5+. Profit accrued	Coll[Long]
R6	Long arrays holding the values of past snapshots: 0. Total governance tokens Staked 1. Amount of times voted 2. Amount of voting power used 3. Pure participation weight 4. Participation weight	Coll[Coll[Long]]
R7	List of tuples of avltree snapshots (stake state, participation)	Coll[(AVLTree, AVLTree)]
R8	Profit to be distributed in latest snapshot	Coll[Long]

## Assets

Token name	amount
{DAO Name} Stake State	1
{DAO Governance token}	1+

## Transactions

Transaction name	Transaction description
Any stake transaction	Almost all logic is handled in companion contracts so remaining logic is simple

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### Context Variables

CV Index	Type	Description
0	Byte	Transaction type
1	Coll[Byte]	Proof for retrieving current DAO Config values

### Config

Config key	Type	Description
im.paideia.contracts.staking.state	PaideiaContractSignature	Signature of the stake state contract
im.paideia.contracts.staking.*	PaideiaContractSignature	Signature of the companion contract

### Inputs

Utxo type	Description
StakeState	Utxo belonging to this contract
Companion contract	The utxo holding the companion contract

### Data Inputs

Utxo type	Description
Config	DAO Config

### Outputs

Utxo type	Description
StakeState	Utxo belonging to this contract
Companion contract	The utxo holding the companion contract
Miner	Miner fee

### Conditions

1. DAO Config input is correct
2. Companion contract correct and present
3. Stake state nft remaining in place
4. Staked governance tokens remaining in place