Staking: step-wise unlock

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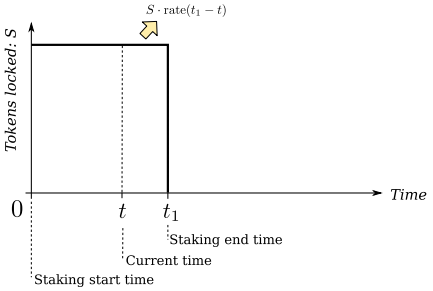
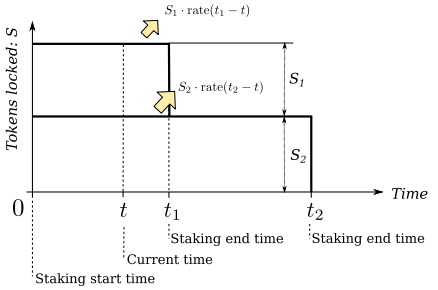
Ursula stakes her tokens by locking until the time she specifies (t_1). If the current time is t, and if the function rate($t_1 - t$) calculates the minting rate depending on the time left to unlock, Ursula's reward rate will be $r =$ S·rate($t_1 - t$), where S is her stake (Fig.1a).



(a) Ursula started staking at $time = 0$ and right now is the moment $time = t$. Ursula commits to end staking at $time = t_1$



(b) Ursula splits her stake S into two parts $S_1 + S_2 = S$. The part $S_1$is staked at the same rate as before, ending at t_1.The part $S_2$is extended in time up to $t_2$and has a higher reward rate

At any time, Ursula can divide her stake S into parts $S_1 \dots S_n$(increasing n by 1 at a time). Each substake should be sufficiently large: $S_i \geq S_{\min}$, and sum of all substakes is equal to S.

Current state of staking can be represented by pairs stake - unlocking time:

```
{
␣␣␣␣t_1:␣S_1,
␣␣␣␣t_2:␣S_2,
␣␣␣␣...
␣␣␣␣t_n:␣S_n
}
```

Any part of the stake $S_i$can be split up into two pieces no less than $S_{\min}$where each piece S_i' and S_i''has unlock time no less than t_i, and $S_i' + S_i'' = S_i$.