

# UiIncentiveDataProviderV3

## UiIncentiveDataProviderV3

Contract that returns an array of all reserve incentives or user claimable rewards within a particular market, used by the [Aave Interface](#) to display incentives data. Compatible with both V2 and V3 of the Aave Protocol.

The [Aave Utilities SDK](#) includes an interface to make calls to this contract, and functions to format the response for frontend use-cases.

## Data Structures

### AggregatedReserveIncentiveData

Name	Type	Description
underlyingAsset	address	Address of the asset supplied/borrowed in Pool
aIncentiveData	IncentiveData	Details of rewards distributed for supplying to Aave Pool i.e. rewards for aToken holders.
vIncentiveData	IncentiveData	Details of rewards distributed for variable debt borrowed from Aave Pool i.e. rewards for vToken holders.
sIncentiveData	IncentiveData	Details of rewards distributed for stable debt borrowed from Aave Pool i.e. rewards for sToken holders.

### IncentiveData

Name	Type	Description
tokenAddress	address	Address of corresponding a/s/vToken.
incentiveControllerAddress	address	Address of Rewards Controller
rewardsTokenInformation	RewardInfo[]	Array of details for all reward tokens that are available for given a/s/vToken

### RewardInfo

Name	Type	Description
rewardTokenSymbol	string	Symbol of Reward Token
rewardTokenAddress	address	Address of Reward Token
rewardOracleAddress	address	Price Oracle for Reward token
emissionPerSecond	uint256	Reward Token emitted per second
incentivesLastUpdateTimestamp	uint256	Unix timestamp of last update made on asset's reward token.
tokenIncentivesIndex	uint256	Latest distribution index of the reward token
emissionEndTimestamp	uint256	Unix timestamp of when the Incentive emission of given reward token ends for the corresponding asset
rewardPriceFeed	int256	Latest answer/price from reward token price oracle
rewardTokenDecimals	uint8	Decimals of reward token precision
priceFeedDecimals	uint8	Decimals of price provided by oracle

### UserReserveIncentiveData

Name	Type	Description
underlyingAsset	address	Address of the asset supplied/borrowed in Pool
aTokenIncentivesUserData	UserIncentiveData	Details of user rewards received for supplying to Aave Pool i.e. rewards for aToken.
vTokenIncentivesUserData	UserIncentiveData	Details of user rewards received for borrowing at variable rate from Aave Pool i.e. rewards for vToken.
sTokenIncentivesUserData	UserIncentiveData	Details of user rewards received for borrowing at stable rate from Aave Pool i.e. rewards for sToken.

### UserIncentiveData

Name	Type	Description
tokenAddress	address	Address of corresponding a/s/vToken.
incentiveControllerAddress	address	Address of Rewards Controller for reward claim tx
userRewardsInformation	UserRewardInfo[]	Array of details for all reward tokens accrued/claimed by user for given a/s/vToken

### UserRewardInfo

Name	Type	Description
rewardTokenSymbol	string	Symbol of Reward Token
rewardOracleAddress	address	Price Oracle for Reward token
rewardTokenAddress	address	Address of Reward Token
userUnclaimedRewards	uint256	User's unclaimed rewards
tokenIncentivesUserIndex	uint256	Latest user distribution index
rewardPriceFeed	int256	Latest answer/price from reward token price oracle
priceFeedDecimals	uint8	Decimals of price provided by oracle
rewardTokenDecimals	uint8	Decimals of reward token

## Methods

### getReservesIncentivesData

function getReservesIncentivesData(IPoolAddressesProvider provider)

Returns AggregatedReserveIncentiveData[] for the pool associated with given [provider](#) .

### getUserReservesIncentivesData

[illegible]

[illegible]

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