SOLIDITY.*FINANCE*

Predictz - Smart Contract Audit Report

SUMMARY

Predictz is a Defi token sale platform. Predictz provides a decentralized auction protocol with multilayered system of safeguards against project failure. Predictz seeks to maximise the capacity of decentralised finance by eliminating the middle men from financial transactions and pass on their earnings to the token holders in a sustainable, trust-less and decentralised manner

> *Notable features included in the contract:*
>
> - *List tokens through the contracts and allow users to buy/swap for tokens for a small set fee.*
> - *Ownership - Some functions are protected and can only be called by the contract owner. The deployer and future owners can transfer ownership to any address.*
> - *Owners have the ability to withdraw ether & ERC20s from the Dex contract.*
> - *Owners declare the results for predictions.*
> - *Utilization of SafeMath to prevent overflows.*
>
> *Audit Findings Summary*

- *The owner of the PredictzDex contract can withdraw the ether or any tokens sent to the contract.*
- *The owner of the FSTPrediction contract declares the results for markets. Ensure trust in the owner.*
- *No security issues from external attackers were identified.*
- *Date: November 13th, 2020.*

COMBINED AUDIT RESULTS

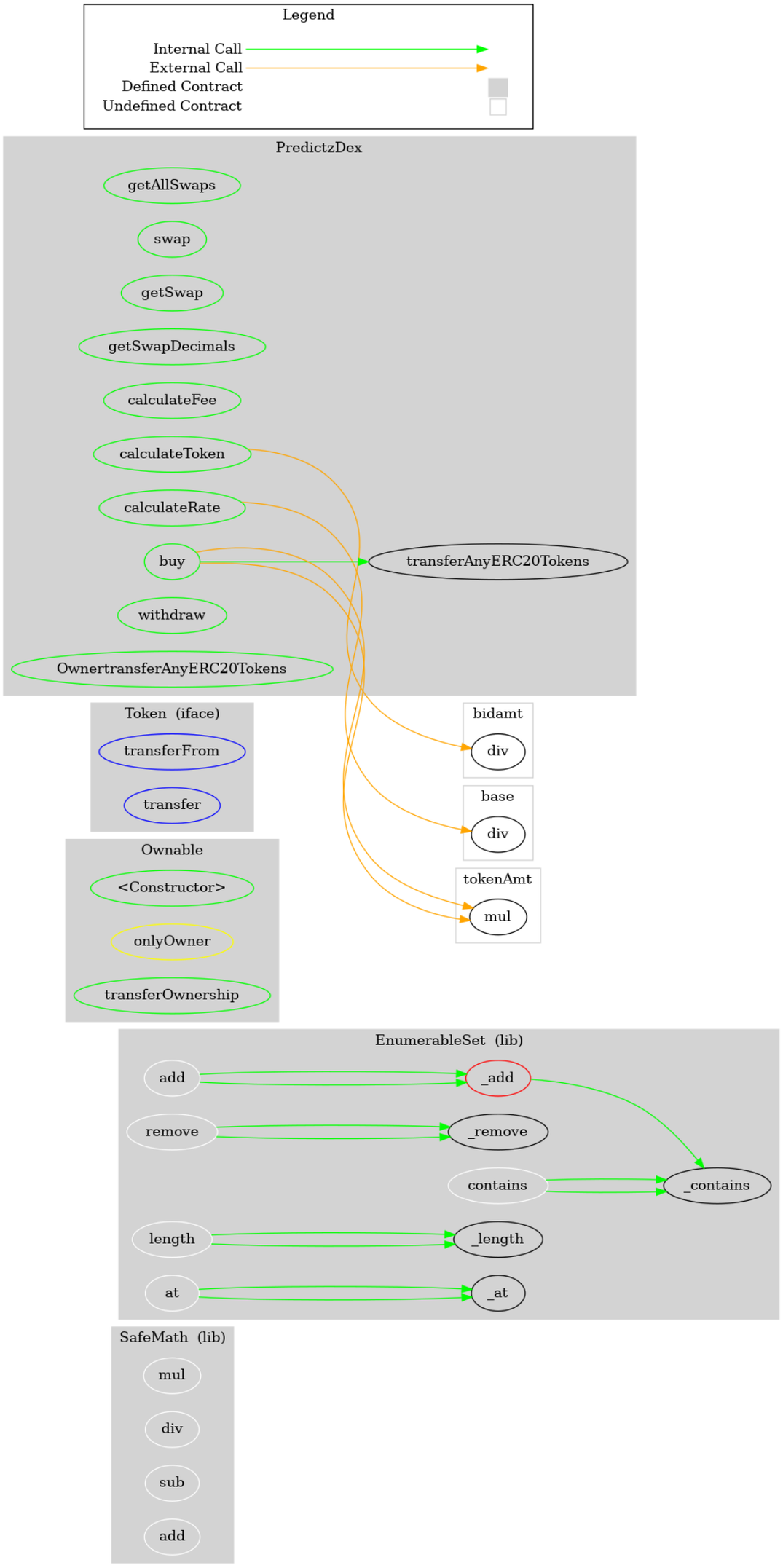
We ran over 400,000 transactions interacting with this suite of contracts on a test blockchain to determine these results.
Date: November 13th, 2020

Vulnerability Category	***Notes***	***Result***
Arbitrary Storage Write	*N/A*	*PASS*
Arbitrary Jump	*N/A*	*PASS*
Delegate Call to Untrusted Contract	*N/A*	*PASS*
Dependence on Predictable Variables	*N/A*	*PASS*
Deprecated Opcodes	*N/A*	*PASS*
Ether Thief	*N/A*	*PASS*
Exceptions	*N/A*	*PASS*
External Calls	*N/A*	*PASS*
Integer Over/Underflow	*N/A*	*PASS*
Multiple Sends	*N/A*	*PASS*

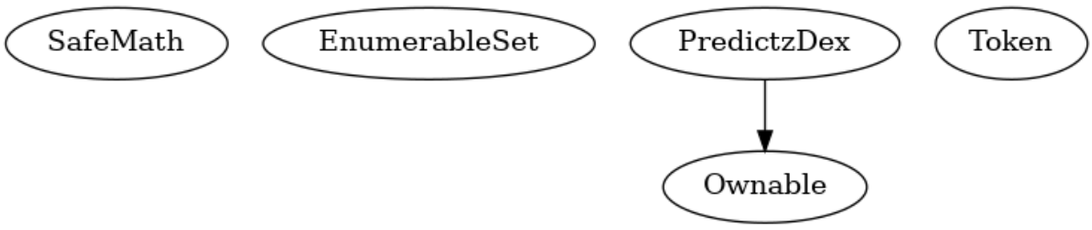
Vulnerability Category	Notes	Result
Suicide	*N/A*	*PASS*
State Change External Calls	*N/A*	*PASS*
Unchecked Retval	*N/A*	*PASS*

DETAILS: PREDICTZDEX

FUNCTION GRAPH


Legend
Internal Call
External Call
Defined Contract
Undefined Contract
PredictzDex
getAllSwaps
swap
getSwap
getSwapDecimals
calculateFee
calculateToken
calculateRate
buy
withdraw
OwnertransferAnyERC20Tokens
transferAnyERC20Tokens
Token (iface)
transferFrom
transfer
Ownable
<Constructor>
onlyOwner
transferOwnership
bidamt
div
base
div
tokenAmt
mul
EnumerableSet (lib)
add
_add
remove
_remove
contains
_contains
length
_length
at
_at
SafeMath (lib)
mul
div
sub
add

INHERITENCE CHART



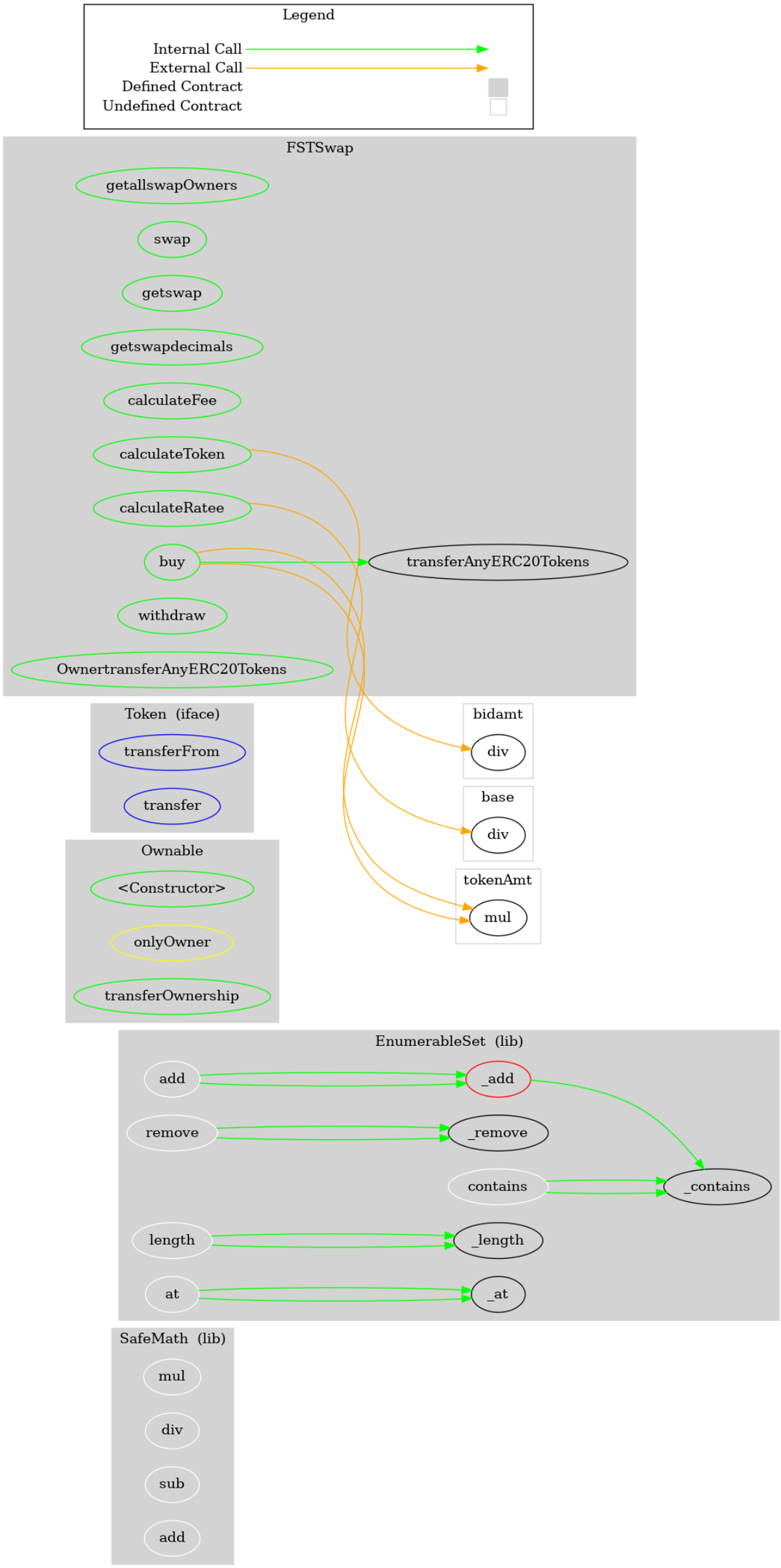
FUNCTIONS OVERVIEW

```
($) = payable function
# = non-constant function

Int = Internal
Ext = External
Pub = Public

+ [Lib] SafeMath
   - [Int] mul
   - [Int] div
   - [Int] sub
   - [Int] add

+ [Lib] EnumerableSet
   - [Prv] _add #
   - [Prv] _remove #
   - [Prv] _contains
   - [Prv] _length
   - [Prv] _at
   - [Int] add #
   - [Int] remove #
   - [Int] contains
   - [Int] length
   - [Int] at
   - [Int] add #
   - [Int] remove #
   - [Int] contains
   - [Int] length
```

```
    - [Int] at

+  Ownable
    - [Pub]  #
    - [Pub] transferOwnership #
       - modifiers: onlyOwner

+ [Int] Token
    - [Ext] transferFrom #
    - [Ext] transfer #

+  PredictzDex (Ownable)
    - [Pub] getAllSwaps
    - [Pub] swap #
    - [Pub] getSwap
    - [Pub] getSwapDecimals
    - [Pub] calculateFee
    - [Pub] calculateToken
    - [Pub] calculateRate
    - [Pub] buy ($)
    - [Pub] withdraw #
       - modifiers: onlyOwner
    - [Prv] transferAnyERC20Tokens #
    - [Pub] OwnertransferAnyERC20Tokens #
       - modifiers: onlyOwner
```

DETAILS: FSTSWAP

FUNCTION GRAPH


Legend
Internal Call
External Call
Defined Contract
Undefined Contract
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swap
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Token (iface)
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length
_length
at
_at
SafeMath (lib)
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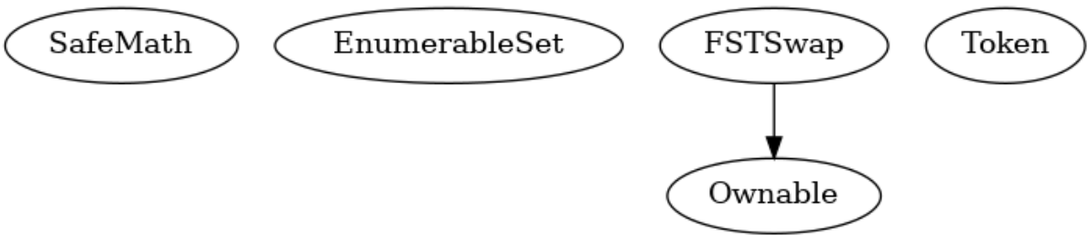

FUNCTIONS OVERVIEW

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    - [Prv] _at
    - [Int] add #
    - [Int] remove #
    - [Int] contains
    - [Int] length
    - [Int] at
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    - [Int] remove #
    - [Int] contains
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    - [Pub]  #
    - [Pub] transferOwnership #
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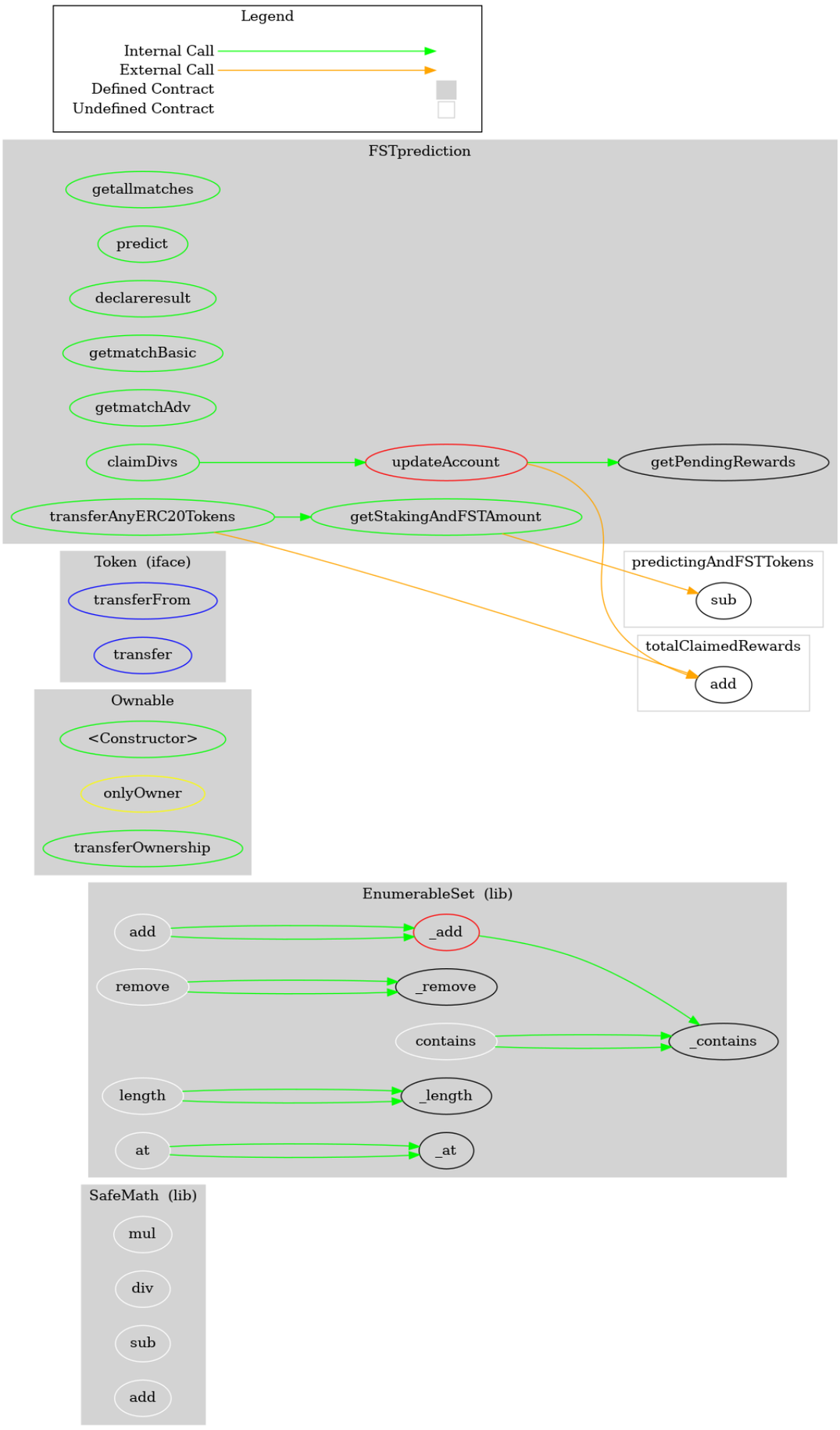
```

```
+ [Int] Token
   - [Ext] transferFrom #
   - [Ext] transfer #

+  FSTSwap (Ownable)
   - [Pub] getallswapOwners
   - [Pub] swap #
   - [Pub] getswap
   - [Pub] getswapdecimals
   - [Pub] calculateFee
   - [Pub] calculateToken
   - [Pub] calculateRatee
   - [Pub] buy ($)
   - [Pub] withdraw #
      - modifiers: onlyOwner
   - [Prv] transferAnyERC20Tokens #
   - [Pub] OwnertransferAnyERC20Tokens #
      - modifiers: onlyOwner
```

DETAILS: FSTPREDICTION

FUNCTION GRAPH



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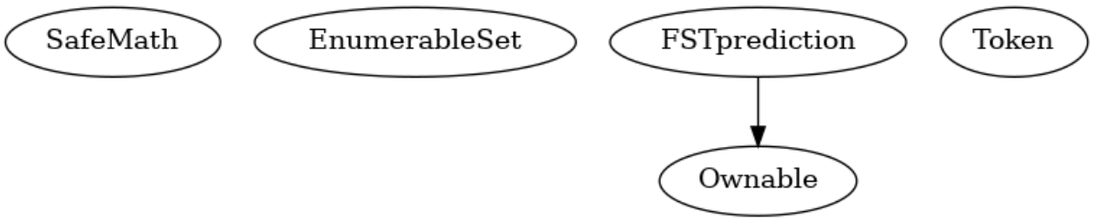

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   - [Int] remove #
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   - [Int] length
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   - [Int] add #
   - [Int] remove #
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   - [Int] length
   - [Int] at

+  Ownable
```

```
    - [Pub]  #
    - [Pub] transferOwnership #
       - modifiers: onlyOwner

+ [Int] Token
    - [Ext] transferFrom #
    - [Ext] transfer #

+  FSTprediction (Ownable)
    - [Pub] getallmatches
    - [Pub] predict #
    - [Pub] declareresult #
       - modifiers: onlyOwner
    - [Pub] getmatchBasic
    - [Pub] getmatchAdv
    - [Pub] getPendingRewards
    - [Prv] updateAccount #
    - [Pub] claimDivs #
    - [Pub] getStakingAndFSTAmount
    - [Pub] transferAnyERC20Tokens #
       - modifiers: onlyOwner
```

PRINT EXPANDED SECTIONS

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