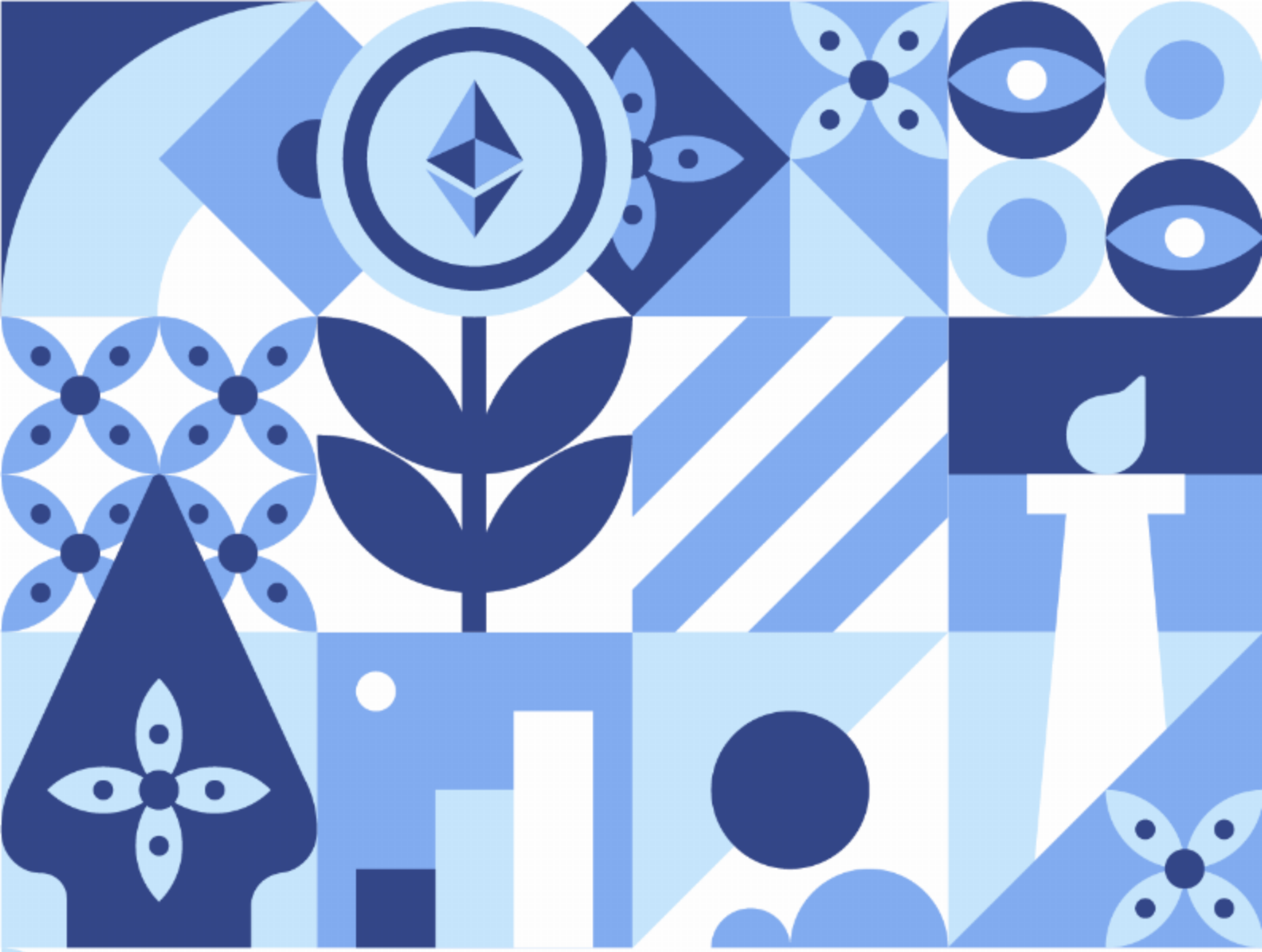

SFMDAO

Smart Contract Audit Report

SYSFIXED

09 Aug 2022

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
SFMDAO	SFM	Ethereum

Addresses

Contract address	0x750b74f3f992a492b7606227dc9a9de59627bf8d
Contract deployer address	0x4D654149c3842d6d48C05d28F621Cbb0AebbC959

Project Website

https://sickfishmixnft.io/

Codebase

https://etherscan.io/address/0x750b74f3f992a492b7606227dc9a9de59627bf8d#code

SUMMARY

The Sick Fish Mix DAO has the following membership benefits: Royalties from our Global BeachWear Fashion Line, Toys and Merchandise Collection which is available in real life and Metaverse, Defi Products, Recycling Facilities, Play 2 Earn Game, SFM Loyalty Program which has over 1.5m retail outlets from top brands across the globe who pay up to 50% cash back in $SFM Token! - all this and much more!! Through the SFM DAO eco-system these pillars are utilized in unison to help scale an effective fight against the plastic pollution in our oceans and environment in general. Blockchain lays the foundation for a vision of the future that's possible - resulting in a greener planet whilst simultaneously generating generous rewards for our community members.

Contract Summary

Documentation Quality

SFMDAO provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by SFMDAO with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 10, 253, 318, 364, 410, 480, 712, 818, 845, 930, 960, 1326, 1389, 1480 and 1715.
- SWC-120 | It is recommended to use external sources of randomness via oracles on lines 1554, 1567, 1696 and 1699.

CONCLUSION

We have audited the SFMDAO project released on August 2022 to discover issues and identify potential security vulnerabilities in SFMDAO Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides a satisfactory result with some low-risk issues.

The issues found in the SFMDAO smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found are some floating pragmas set on several lines and some weak sources of randomness. It is recommended to use external sources of randomness via oracles.

AUDIT RESULT

Article	Category	Description	Result
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	PASS
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	PASS
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	ISSUE FOUND
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	PASS
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.	PASS
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	PASS

DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	ISSUE FOUND
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	PASS
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS

Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	PASS
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.	PASS
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS

SMART CONTRACT ANALYSIS

Started	Monday Aug 08 2022 10:36:32 GMT+0000 (Coordinated Universal Time)
Finished	Tuesday Aug 09 2022 01:14:20 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	Token.sol

Detected Issues

ID	Title	Severity	Status
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
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SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged

SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 10

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
9
10   pragma solidity ^0.8.0;
11
12   /**
13   * @dev Wrappers over Solidity's uintXX/intXX casting operators with added overflow
14
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 253

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
252   // OpenZeppelin Contracts (last updated v4.5.0) (governance/utils/IVotes.sol)
253   pragma solidity ^0.8.0;
254
255   /**
256   * @dev Common interface for {ERC20Votes}, {ERC721Votes}, and other {Votes}-enabled
contracts.
257
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 318

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
317
318   pragma solidity ^0.8.0;
319
320   /**
321   * @dev Standard math utilities missing in the Solidity language.
322
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 364

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
363
364   pragma solidity ^0.8.0;
365
366   /**
367   * @title Counters
368
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 410

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
409
410   pragma solidity ^0.8.0;
411
412   /**
413   * @dev String operations.
414
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 480

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
479
480   pragma solidity ^0.8.0;
481
482
483   /**
484
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 712

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
711
712   pragma solidity ^0.8.0;
713
714
715   /**
716
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 818

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
817
818   pragma solidity ^0.8.0;
819
820   /**
821   * @dev Provides information about the current execution context, including the
822
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 845

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
844
845   pragma solidity ^0.8.0;
846
847   /**
848   * @dev Interface of the ERC20 standard as defined in the EIP.
849
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 930

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
929
930   pragma solidity ^0.8.0;
931
932
933   /**
934
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 960

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
959
960   pragma solidity ^0.8.0;
961
962
963
964
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 1326

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
1325
1326   pragma solidity ^0.8.0;
1327
1328   /**
1329   * @dev Interface of the ERC20 Permit extension allowing approvals to be made via
signatures, as defined in
1330
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 1389

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
1388
1389   pragma solidity ^0.8.0;
1390
1391
1392
1393
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 1480

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
1479
1480   pragma solidity ^0.8.0;
1481
1482
1483
1484
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 1715

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- Token.sol

Locations

```
1714
1715   pragma solidity ^0.8.0;
1716
1717
1718   contract Ownable is Context {
1719
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 1554

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- Token.sol

Locations

```
1553   function getPastVotes(address account, uint256 blockNumber) public view virtual
override returns (uint256) {
1554   require(blockNumber < block.number, "ERC20Votes: block not yet mined");
1555   return _checkpointsLookup(_checkpoints[account], blockNumber);
1556   }
1557
1558
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 1567

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- Token.sol

Locations

```
1566   function getPastTotalSupply(uint256 blockNumber) public view virtual override
returns (uint256) {
1567   require(blockNumber < block.number, "ERC20Votes: block not yet mined");
1568   return _checkpointsLookup(_totalSupplyCheckpoints, blockNumber);
1569   }
1570
1571
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 1696

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- Token.sol

Locations

```
1695
1696   if (pos > 0 && ckpts[pos - 1].fromBlock == block.number) {
1697   ckpts[pos - 1].votes = SafeCast.toUint224(newWeight);
1698   } else {
1699   ckpts.push(Checkpoint({fromBlock: SafeCast.toUint32(block.number), votes:
SafeCast.toUint224(newWeight)}));
1700
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.

LINE 1699

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- Token.sol

Locations

```
1698   } else {
1699   ckpts.push(Checkpoint({fromBlock: SafeCast.toUint32(block.number), votes:
SafeCast.toUint224(newWeight)}));
1700   }
1701   }
1702
1703
```

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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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