

Smart Contract Security Audit V1

Dinos Extinction Token Smart Contract Audit

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Jun 26, 2023



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Background

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Project Information

- **Platform:** Ethereum
- **Contract Address:** 0x627542a0689b307d7b4d69f3465c62b95bb5b63b
- **Code Source:** <https://etherscan.io/token/0x627542a0689b307d7b4d69f3465c62b95bb5b63b#code>
- **Website:** <https://dinoextinction.com/>
- **Telegram:** <https://t.me/dinoextinction>
- **Twitter:** <https://twitter.com/DinosExtinction>

Contracts address deployed to test net (ETH)

Dinos Extinction Token smart contracts on ETH test-net by the auditor to test every function.

<https://goerli.etherscan.io/address/0xb9bd7481030febc12f074d2cb531df8b481e16ff>

Token Information:

Name	Dinos Extinction
Symbol	RATS
Total supply	100,000,000
Decimals	18
Router	0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D
Buy Fee	0%
Sell Fee	0%
Max Buy Limit	2%
Max Wallet Limit	2%
Max Sell Limit	2%
Swap Tokens at Amount	5%

Executive Summary

According to our assessment, the customer`s solidity smart contract is **Well-Secured**.

Well Secured	✓
Secured	
Poor Secured	
Insecure	

Automated checks are with remix IDE. All issues were performed by the team, which included the analysis of code functionality, manual audit found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the audit overview section. The general overview is presented in the Project Information section and all issues found are located in the audit overview section.

Team found 0 critical, 0 high, 0 medium, 2 low, 0 very low-level issues and 0 note in all solidity files of the contract

The files:

DinosExtinction.sol

File and Function Level Report

File in Scope:

Contract Name	SHA 256 hash	Contract Address
DinosExtinction.sol	16527c8da43035829680116431c1797021b4ea42	0x627542a0689b307d7b4d69f3465c62b95bb5b63b

- Contract: DinosExtinction
- Inherit: ERC20, Ownable
- Observation: All passed including security check
- Test Report: passed
- Score: passed
- Conclusion: passed

Function	Test Result	Type / Return Type	Score
name	✓	Read / public	Passed
symbol	✓	Read / public	Passed
decimals	✓	Read / public	Passed
totalSupply	✓	Read / public	Passed
allowance	✓	Read / public	Passed
balanceOf	✓	Read / public	Passed
decimals	✓	Read / public	Passed
buyTotalFees	✓	Read / public	Passed
maxWalletAmount	✓	Read / public	Passed
maxBuyAmount	✓	Read / public	Passed
maxSellAmount	✓	Read / public	Passed
sellTotalFees	✓	Read / public	Passed

swapTokensAtAmount	✓	Read / public	Passed
transferFrom	✓	Write / public	Passed
transfer	✓	Write / public	Passed
decreaseAllowance	✓	Write / public	Passed
increaseAllowance	✓	Write / public	Passed
renounceOwnership	✓	Write / public	Passed
approve	✓	Write / public	Passed
removeTax	✓	Write / public	Passed
removeLimits	✓	Write / public	Passed
updateBuyFees	✓	Write / public	Passed
updateSellFees	✓	Write / public	Passed
updateMaxBuyAmount	✓	Write / public	Passed
updateMaxSellAmount	✓	Write / public	Passed
updateMaxWalletAmount	✓	Write / public	Passed
updateSwapTokensAtAmount	✓	Write / public	Passed

Issues Checking Status

No.	Issue Description	Checking Status
1	Compiler warnings.	Passed
2	Race conditions and Reentrancy. Cross-function race conditions.	Passed
3	Possible delays in data delivery.	Passed
4	Oracle calls.	Passed
5	Design Logic.	Passed
6	Timestamp dependence.	Passed with notes
7	Integer Overflow and Underflow.	Passed
8	DoS with Revert.	Passed
9	DoS with block gas limit.	Passed with notes
10	Methods execution permissions.	Passed
11	Economy model. If application logic is based on an incorrect economic model, the application would not function correctly and participants would incur financial losses. This type of issue is most often found in bonus rewards systems, Staking and Farming contracts, Vault and Vesting contracts, etc.	Passed
12	The impact of the exchange rate on the logic.	Passed
13	Private user data leaks.	Passed
14	Malicious Event log.	Passed
15	Scoping and Declarations.	Passed
16	Uninitialized storage pointers.	Passed
17	Arithmetic accuracy.	Passed

Severity Definitions

Risk Level	Description
Critical	Critical vulnerabilities are usually straightforward to exploit and can lead to tokens loss etc.
High	High-level vulnerabilities are difficult to exploit; however, they also have significant impact on smart contract execution, e.g. public access to crucial functions
Medium	Medium-level vulnerabilities are important to fix; however, they can't lead to tokens lose
Low	Low-level vulnerabilities are mostly related to outdated, unused etc. code snippets, that can't have significant impact on execution
Note	Lowest-level vulnerabilities, code style violations and info statements can't affect smart contract execution and can be ignored.

Audit Findings

Critical:

No Critical severity vulnerabilities were found.

High:

No High severity vulnerabilities were found.

Medium:

No Medium severity vulnerabilities were found.

Low:

#Use of block.timestamp for comparisons

Description

The value of block.timestamp can be manipulated by the miner. And conditions with strict equality is difficult to achieve - block.timestamp.

Remediation

Avoid use of block.timestamp

Status: [Acknowledged](#).

#Owner privileges (In the period when the owner isn't renounced)

Description

The owner can change / remove buy and sell amount.

The owner can change / remove the fees contract.

The owner can change / remove the max wallet percent of holding the tokens.

```
function removeLimits() external onlyOwner {
    limitsInEffect = false;
    emit RemovedLimits();
}
function updateMaxBuyAmount(uint256 newNum) external onlyOwner {
    require(newNum >= (totalSupply() * 1 / 1000)/1e18, "Cannot set max buy
amount lower than 0.1%");
    maxBuyAmount = newNum * (10**18);
    emit UpdatedMaxBuyAmount(maxBuyAmount);
    function updateMaxSellAmount(uint256 newNum) external onlyOwner {
        require(newNum >= (totalSupply() * 1 / 1000)/1e18, "Cannot set max sell
amount lower than 0.1%");
        maxSellAmount = newNum * (10**18);
        emit UpdatedMaxSellAmount(maxSellAmount);
    }
}
```

```

function updateMaxWalletAmount(uint256 newNum) external onlyOwner {
    require(newNum >= (totalSupply() * 1 / 1000)/1e18, "Cannot set max wallet
amount lower than 0.1%");
    maxWalletAmount = newNum * (10**18);
    emit UpdatedMaxWalletAmount(maxWalletAmount);
}

// change the minimum amount of tokens to sell from fees
function updateSwapTokensAtAmount(uint256 newAmount) external onlyOwner {
    require(newAmount >= totalSupply() * 1 / 100000, "Swap amount cannot be
lower than 0.001% total supply.");
    swapTokensAtAmount = newAmount;
}

function updateBuyFees(uint256 _operationsFee) external onlyOwner {
    buyOperationsFee = _operationsFee;
    buyTotalFees = buyOperationsFee;
    require(buyTotalFees <= 30, "Must keep fees at 30% or less");
}

function updateSellFees(uint256 _operationsFee) external onlyOwner {
    sellOperationsFee = _operationsFee;
    sellTotalFees = sellOperationsFee;
    require(sellTotalFees <= 50, "Must keep fees at 50% or less");
}

function removeTax() external onlyOwner {
    sellOperationsFee = 0;
    sellTotalFees = sellOperationsFee;
    buyOperationsFee = 0;
    buyTotalFees = buyOperationsFee;
}

```

Remediation

Make these functions internal in next version or the team should announce the investors before doing anything to give them time if they want to do anything.

P.S: This issue is common to the majority of those smart contracts.

Status: **Acknowledged**.

Very Low:

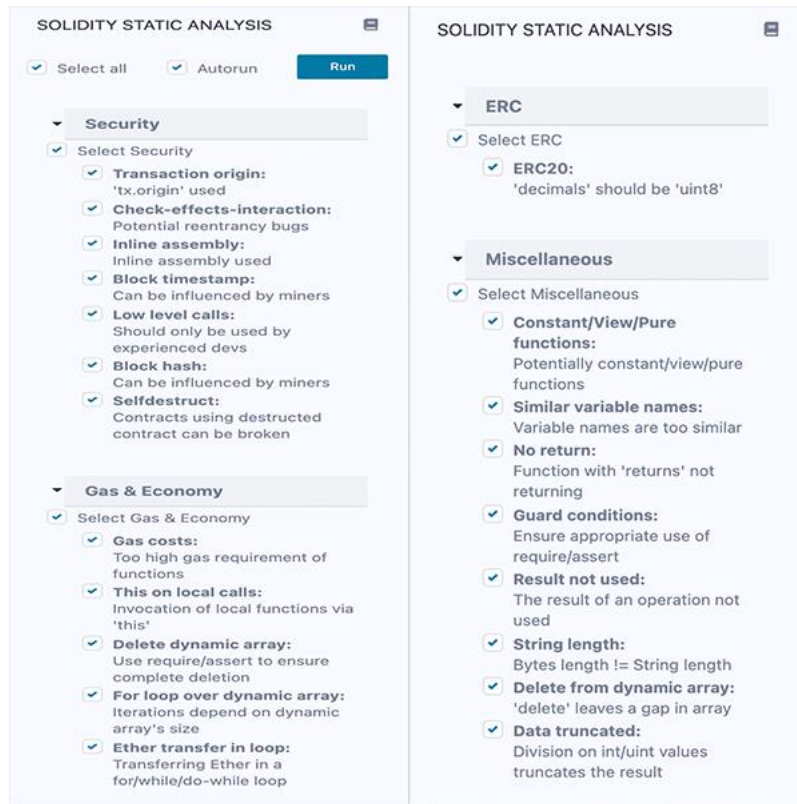
No Very Low severity vulnerabilities were found.

Notes:

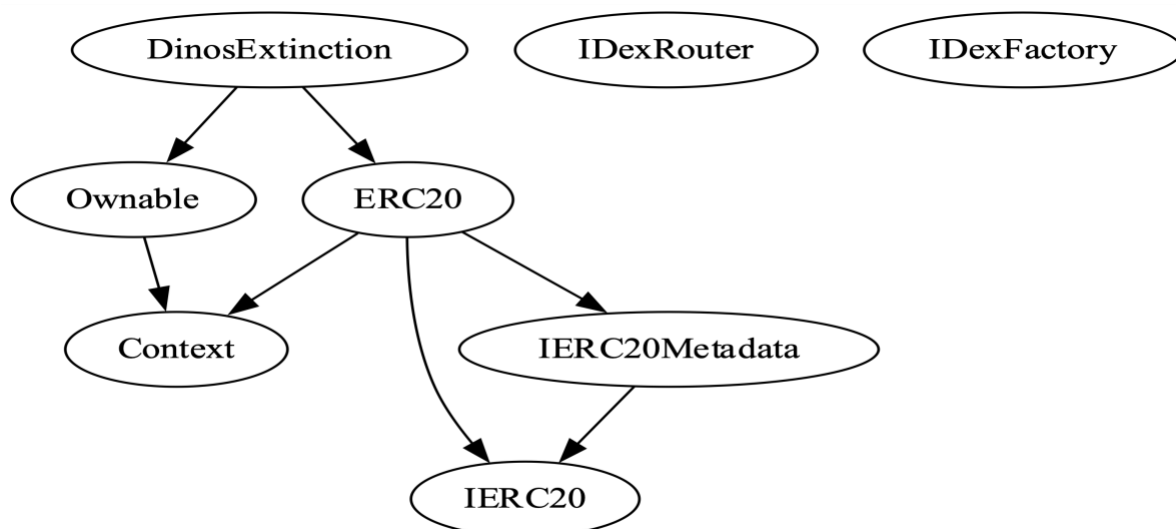
No notes were found.

Automatic Testing

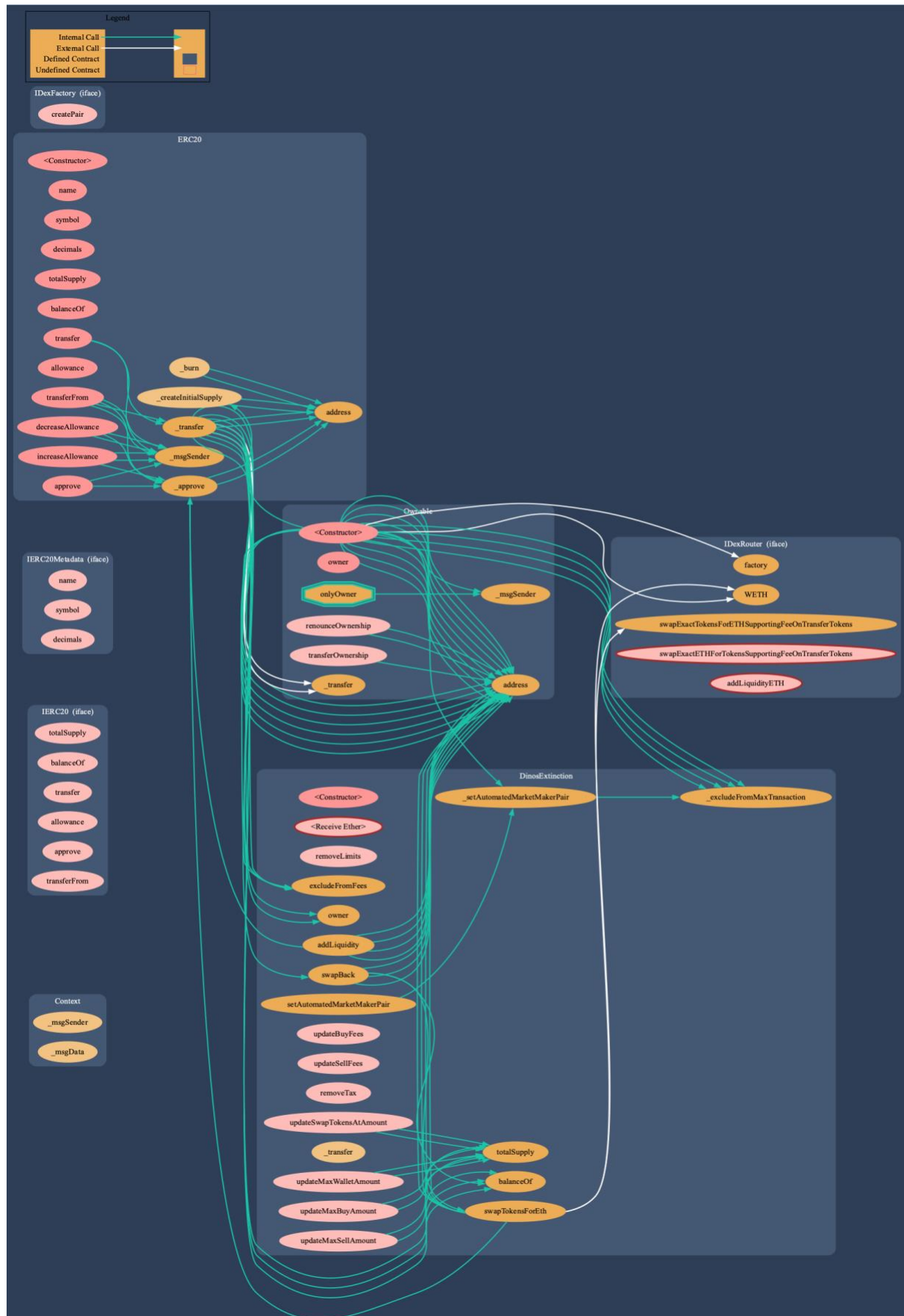
1- SOLIDITY STATIC ANALYSIS



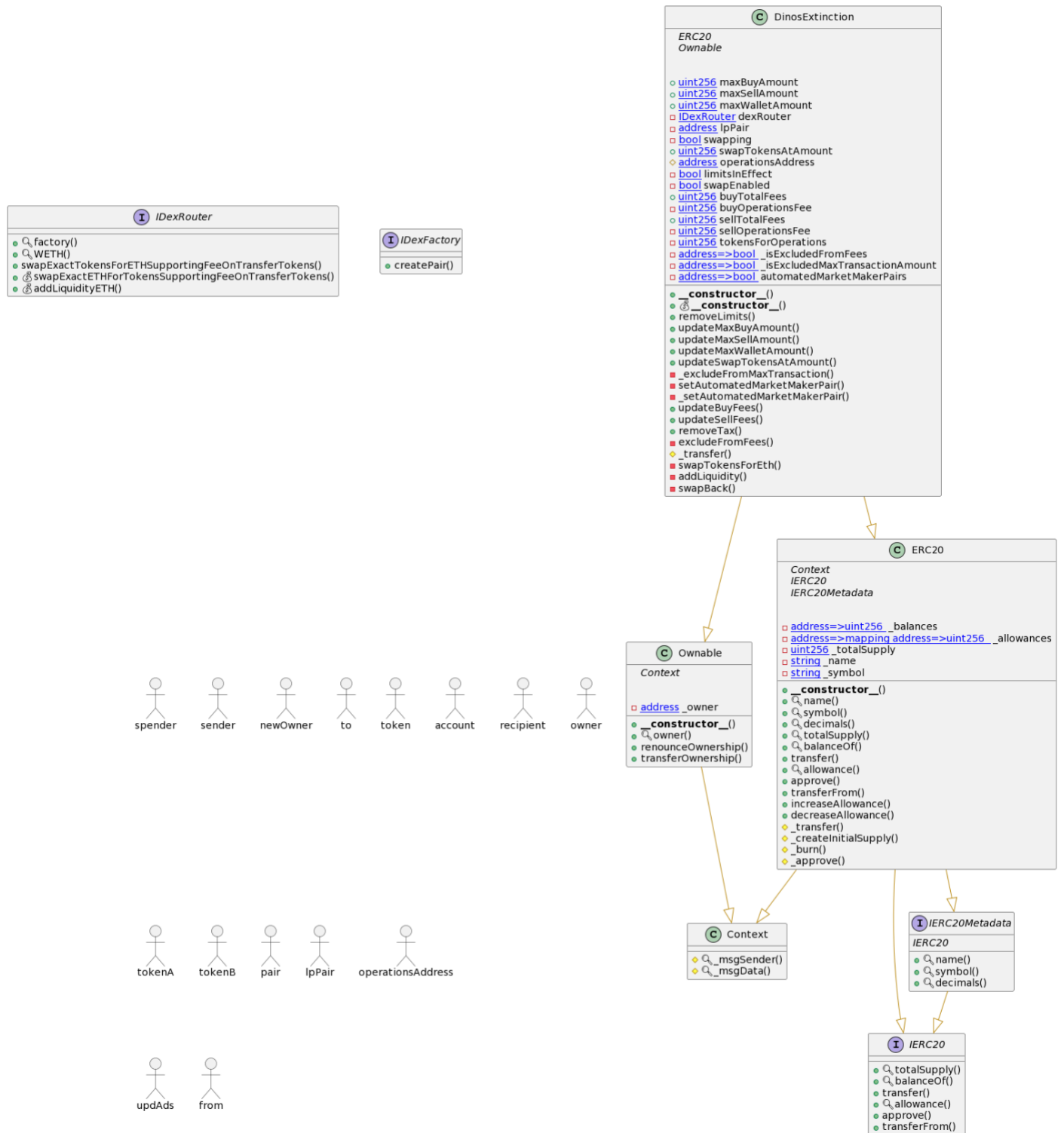
2- Inheritance graph



3- Call graph



Unified Modeling Language (UML)



Functions signature

Sighash | Function Signature

=====

```
39509351 => increaseAllowance(address,uint256)
119df25f => _msgSender()
8b49d47e => _msgData()
18160ddd => totalSupply()
70a08231 => balanceOf(address)
a9059cbb => transfer(address,uint256)
dd62ed3e => allowance(address,address)
095ea7b3 => approve(address,uint256)
23b872dd => transferFrom(address,address,uint256)
06fdde03 => name()
95d89b41 => symbol()
313ce567 => decimals()
a457c2d7 => decreaseAllowance(address,uint256)
30e0789e => _transfer(address,address,uint256)
27d1b3c7 => _createInitialSupply(address,uint256)
6161eb18 => _burn(address,uint256)
104e81ff => _approve(address,address,uint256)
8da5cb5b => owner()
715018a6 => renounceOwnership()
f2fde38b => transferOwnership(address)
c45a0155 => factory()
ad5c4648 => WETH()
791ac947 =>
swapExactTokensForETHSupportingFeeOnTransferTokens(uint256,uint256,address[],address,
s,uint256)
b6f9de95 =>
swapExactETHForTokensSupportingFeeOnTransferTokens(uint256,address[],address,uint25
6)
f305d719 => addLiquidityETH(address,uint256,uint256,uint256,address,uint256)
c9c65396 => createPair(address,address)
751039fc => removeLimits()
2be32b61 => updateMaxBuyAmount(uint256)
dc3f0d0f => updateMaxSellAmount(uint256)
c18bc195 => updateMaxWalletAmount(uint256)
d257b34f => updateSwapTokensAtAmount(uint256)
69df99a0 => _excludeFromMaxTransaction(address,bool)
9a7a23d6 => setAutomatedMarketMakerPair(address,bool)
a7f7b36f => _setAutomatedMarketMakerPair(address,bool)
71fc4688 => updateBuyFees(uint256)
eba4c333 => updateSellFees(uint256)
2f5f2572 => removeTax()
c0246668 => excludeFromFees(address,bool)
b28805f4 => swapTokensForEth(uint256)
9cd441da => addLiquidity(uint256,uint256)
6ac5eeee => swapBack()
```

Automatic general report

Files Description Table

File Name	SHA-1 Hash
/Users/macbook/Desktop/smart contracts/DinosExtinction.sol	16527c8da43035829680116431c1797021b4ea42

Contracts Description Table



Contract	Type	Bases		
:-----: :-----: :-----: :-----: :-----				
-----:				
L	**Function Name**	**Visibility**	**Mutability**	
Modifiers				
Context	Implementation			
L	_msgSender	Internal		
L	_msgData	Internal		
IERC20	Interface			
L	totalSupply	External	!	NO!
L	balanceOf	External	!	NO!
L	transfer	External		NO!
L	allowance	External	!	NO!
L	approve	External		NO!
L	transferFrom	External		NO!
IERC20Metadata	Interface	IERC20		
L	name	External	!	NO!
L	symbol	External	!	NO!
L	decimals	External	!	NO!
ERC20	Implementation	Context, IERC20, IERC20Metadata		
L	<Constructor>	Public		NO!
L	name	Public	!	NO!
L	symbol	Public	!	NO!
L	decimals	Public	!	NO!
L	totalSupply	Public	!	NO!
L	balanceOf	Public	!	NO!
L	transfer	Public		NO!
L	allowance	Public	!	NO!
L	approve	Public		NO!
L	transferFrom	Public		NO!
L	increaseAllowance	Public		NO!
L	decreaseAllowance	Public		NO!
L	_transfer	Internal		
L	_createInitialSupply	Internal		
L	_burn	Internal		
L	_approve	Internal		
Ownable	Implementation	Context		
L	<Constructor>	Public		NO!
L	owner	Public	!	NO!


```

| L | renounceOwnership | External ! |  | onlyOwner |
| L | transferOwnership | Internal  |  | |
| | | |
| **IDexRouter** | Interface | | |
| L | factory | External ! | NO! |
| L | WETH | External ! | NO! |
| L | swapExactTokensForETHSupportingFeeOnTransferTokens | External ! |  | NO! |
| L | swapExactETHForTokensSupportingFeeOnTransferTokens | External ! |  | NO! |
| L | addLiquidityETH | External ! |  | NO! |
| | | |
| **IDexFactory** | Interface | | |
| L | createPair | External ! |  | NO! |
| | | |
| **NameHereToken** | Implementation | ERC20, Ownable | |
| L | <Constructor> | Public ! |  | ERC20 |
| L | <Receive Ether> | External ! |  | NO! |
| L | removeLimits | External ! |  | onlyOwner |
| L | updateMaxBuyAmount | External ! |  | onlyOwner |
| L | updateMaxSellAmount | External ! |  | onlyOwner |
| L | updateMaxWalletAmount | External ! |  | onlyOwner |
| L | updateSwapTokensAtAmount | External ! |  | onlyOwner |
| L | _excludeFromMaxTransaction | Private  |  | |
| L | setAutomatedMarketMakerPair | Private  |  | |
| L | _setAutomatedMarketMakerPair | Private  |  | |
| L | updateBuyFees | External ! |  | onlyOwner |
| L | updateSellFees | External ! |  | onlyOwner |
| L | removeTax | External ! |  | onlyOwner |
| L | excludeFromFees | Private  |  | |
| L | _transfer | Internal  |  | |
| L | swapTokensForEth | Private  |  | |
| L | addLiquidity | Private  |  | |
| L | swapBack | Private  |  | |

```

Legend

Symbol	Meaning
:-----:	-----
	Function can modify state
	Function is payable

Conclusion

The contracts are written systematically. Team found no critical issues. So, it is good to go for production.

Since possible test cases can be unlimited and developer level documentation (code flow diagram with function level description) not provided, for such an extensive smart contract protocol, we provide no such guarantee of future outcomes. We have used all the latest static tools and manual observations to cover maximum possible test cases to scan Everything.

Security state of the reviewed contract is “Well Secured”.

- ✓ No volatile code.
- ✓ No high severity issues were found.

Disclaimer

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 the team on the basis of what it says or doesn't say, or how team produced it, and it is important for you to conduct your own independent investigations before making any decisions. team go into more detail on this in the below disclaimer below – please make sure to read it in full.

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