



Cyberscope

Audit Report

Z Versus Project

September 2022

Type BEP20

Network BSC

Address 0xa6966B70F6d6Cc70a518550f156e81Fc11bd88f2

Audited by © cyberscope

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Contract Review

Contract Name	ZVersusProject
Compiler Version	v0.8.17+commit.8df45f5f
Optimization	5000 runs
Licence	MIT
Explorer	https://bscscan.com/token/0xa6966B70F6d6Cc70a518550f156e81Fc11bd88f2
Symbol	ZVERSUS
Decimals	18
Total Supply	1,000,000,000
Domain	zversus.io

Source Files

Filename	SHA256
contract.sol	56b86b8a6aad43b6a77f85d0c9322f09766c523025c9f2c7d119adb270b368dc

Audit Updates

Initial Audit	11th July 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v1/audit.pdf
Corrected phase 1	24th August 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v2/audit.pdf
Corrected phase 2	20th September 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v3/audit.pdf
Corrected phase 3	21st September 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v4/audit.pdf
Corrected phase 4	28th September 2022

Contract Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OCTD	Transfers Contract's Tokens	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	ULTW	Transfers Liquidity to Team Wallet	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Contract Diagnostics

● Critical ● Medium ● Minor / Informative

Severity	Code	Description	Status
●	STC	Succeeded Transfer Check	Unresolved
●	L01	Public Function could be Declared External	Unresolved
●	L04	Conformance to Solidity Naming Conventions	Unresolved
●	L07	Missing Events Arithmetic	Unresolved
●	L12	Using Variables before Declaration	Unresolved
●	L14	Uninitialized Variables in Local Scope	Unresolved

STC - Succeeded Transfer Check

Criticality	minor / informative
Location	contract.sol#L489
Status	Unresolved

Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
bool success;  
uint256 marketingBalance = amtBalance;  
(success,) = marketingWallet.call{value: marketingBalance, gas: 35000}("");
```

Recommendation

The contract should check if the result of the transfer methods is successful.

L01 - Public Function could be Declared External

Criticality	minor / informative
Location	contract.sol#L348,267,511
Status	Unresolved

Description

Public functions that are never called by the contract should be declared external to save gas.

```
getCirculatingSupply  
transfer  
enableTrading
```

Recommendation

Use the external attribute for functions never called from the contract.

L04 - Conformance to Solidity Naming Conventions

Criticality	minor / informative
Location	contract.sol#L33,111,115,114,148,131,356,112,129,130,123,113,132
Status	Unresolved

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow `_` at the beginning of the mixed_case match for private variables and unused parameters.

```
WETH
startingSupply
_tTotal
_decimals
_hasLiqBeenAdded
maxTransferTaxes
_antiSnipe
_name
maxBuyTaxes
...
```

Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>.

L07 - Missing Events Arithmetic

Criticality	minor / informative
Location	contract.sol#L389,380
Status	Unresolved

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
piSwapPercent = priceImpactSwapPercent  
swapThreshold = (_tTotal * thresholdPercent) / thresholdDivisor
```

Recommendation

Emit an event for critical parameter changes.

L12 - Using Variables before Declaration

Criticality	minor / informative
Location	contract.sol#L540
Status	Unresolved

Description

The contract is using a variable before the declaration. This is usually happening either if it has not been declared yet or the variable has been declared in a different scope.

check

Recommendation

The variables should be declared before any usage of them.

L14 - Uninitialized Variables in Local Scope

Criticality	minor / informative
Location	contract.sol#L540,539
Status	Unresolved

Description

These are variables that are defined in the local scope and are not initialized.

check
checked

Recommendation

All the local scoped variables should be initialized.

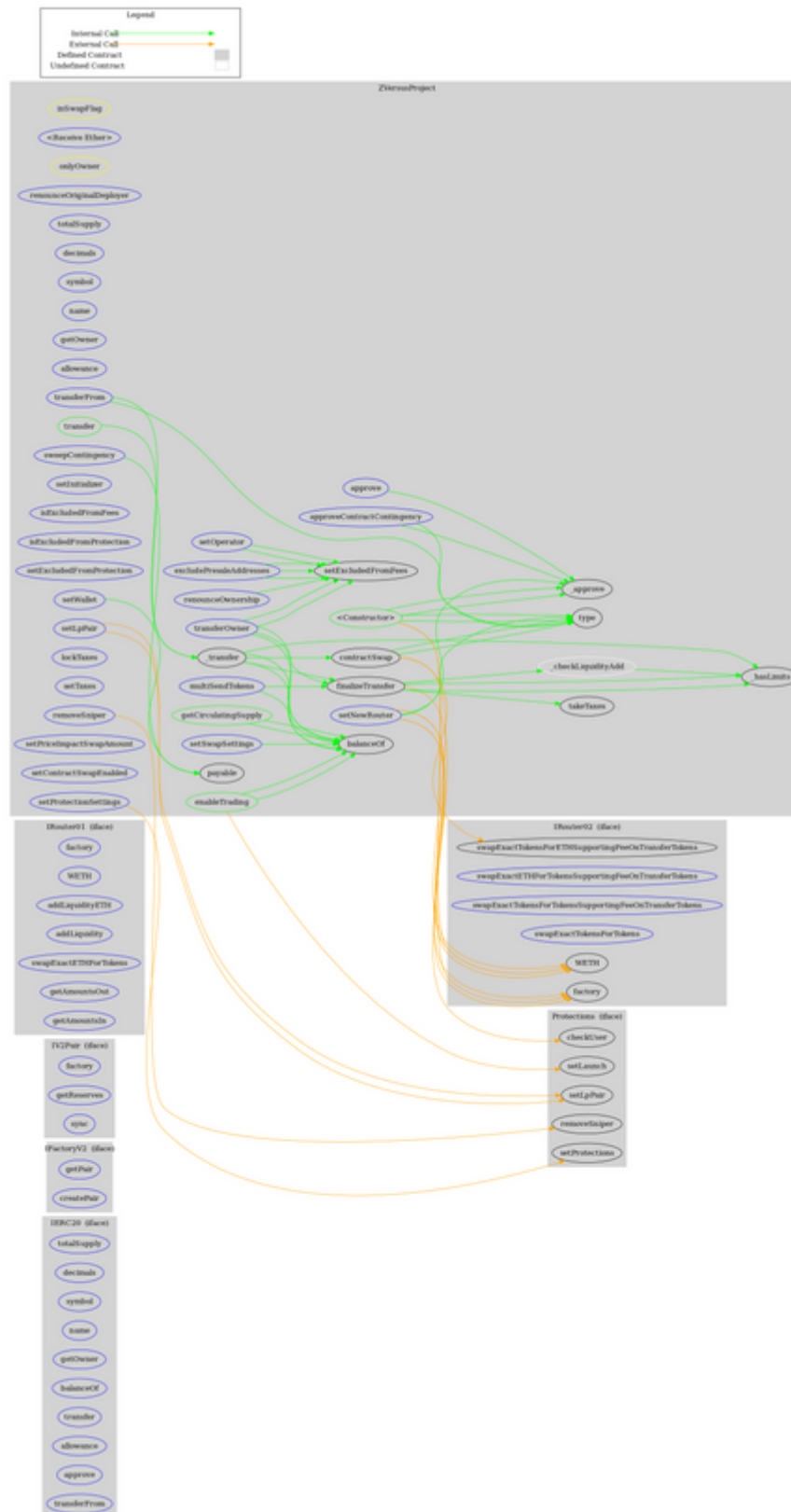
Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IFactoryV2	Interface			
	getPair	External		-
	createPair	External	✓	-
IV2Pair	Interface			
	factory	External		-
	getReserves	External		-
	sync	External	✓	-
IRouter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	addLiquidity	External	✓	-
	swapExactETHForTokens	External	Payable	-
	getAmountsOut	External		-

	getAmountsIn	External		-
IRouter02	Interface	IRouter01		
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokens	External	✓	-
Protections	Interface			
	checkUser	External	✓	-
	setLaunch	External	✓	-
	setLpPair	External	✓	-
	setProtections	External	✓	-
	removeSniper	External	✓	-
ZVersusProject	Implementation	IERC20		
	<Constructor>	Public	Payable	-
	<Receive Ether>	External	Payable	-
	transferOwner	External	✓	onlyOwner
	renounceOwnership	External	✓	onlyOwner
	setOperator	External	✓	-
	renounceOriginalDeployer	External	✓	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	allowance	External		-
	balanceOf	Public		-
	transfer	Public	✓	-
	approve	External	✓	-
	_approve	Internal	✓	

	approveContractContingency	External	✓	onlyOwner
	transferFrom	External	✓	-
	setNewRouter	External	✓	onlyOwner
	setLpPair	External	✓	onlyOwner
	setInitializer	External	✓	onlyOwner
	isExcludedFromFees	External		-
	isExcludedFromProtection	External		-
	setExcludedFromFees	Public	✓	onlyOwner
	setExcludedFromProtection	External	✓	onlyOwner
	getCirculatingSupply	Public		-
	removeSniper	External	✓	onlyOwner
	setProtectionSettings	External	✓	onlyOwner
	lockTaxes	External	✓	onlyOwner
	setTaxes	External	✓	onlyOwner
	setWallet	External	✓	onlyOwner
	setSwapSettings	External	✓	onlyOwner
	setPriceImpactSwapAmount	External	✓	onlyOwner
	setContractSwapEnabled	External	✓	onlyOwner
	excludePresaleAddresses	External	✓	onlyOwner
	_hasLimits	Internal		
	_transfer	Internal	✓	
	contractSwap	Internal	✓	inSwapFlag
	_checkLiquidityAdd	Internal	✓	
	enableTrading	Public	✓	onlyOwner
	sweepContingency	External	✓	onlyOwner
	multiSendTokens	External	✓	onlyOwner
	finalizeTransfer	Internal	✓	
	takeTaxes	Internal	✓	

Contract Flow



Domain Info

Domain Name	zversus.io
Registry Domain ID	d78703517ed94161b1e8de375cc31687-DONUTS
Creation Date	2022-01-10T13:51:00Z
Updated Date	2022-04-20T12:38:14Z
Registry Expiry Date	2023-01-10T13:51:00Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain was created 8 months before the creation of the audit. It will expire in 5 months.

There is no public billing information, the creator is protected by the privacy settings.

Summary

Z Versus Project is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 5% fees.

Disclaimer

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Cyberscope and Coinscope are aiming to make crypto discoverable and efficient globally. They provide all the essential tools to assist users draw their own conclusions.



The Cyberscope team

<https://www.cyberscope.io>



Cyberscope

Audit Report

Z Versus Project

July 2022

Type BEP20

Network BSC

Address 0xc8b52f5a2feaa7a4390b099f2f5e45e46760c1b2

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Contract Review

Contract Name	CoinToken
Compiler Version	v0.4.24+commit.e67f0147
Optimization	200 runs
Licence	Apache-2.0
Explorer	https://bscscan.com/token/0xC8b52F5a2fEAa7A4390B099f2f5E45E46760c1b2
Symbol	ZVERSUS
Decimals	9
Total Supply	1,000,000,000
Domain	zversus.io

Source Files

Filename	SHA256
contract.sol	e994b0153c44e8ed42db01bb21bb0afb8d17e9e719a17123ebfa329c1cc0ec0a

Audit Updates

Initial Audit	11th July 2022
Corrected	

Contract Analysis

● Critical ● Medium ● Minor ● Pass

Severity	Code	Description
●	ST	Contract Owner is not able to stop or pause transactions
●	OCTD	Contract Owner is not able to transfer tokens from specific address
●	OTUT	Owner Transfer User's Tokens
●	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)
●	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
●	MT	Contract Owner is not able to mint new tokens
●	BT	Contract Owner is not able to burn tokens from specific wallet
●	BC	Contract Owner is not able to blacklist wallets from selling

MT - Mint Tokens

Criticality	critical
Location	contract.sol#L256

Description

The contract owner has the authority to mint tokens. The owner may take advantage of it by calling the `mint` function. As a result the contract tokens will be highly inflated.

```
function mint(address account, uint256 amount) onlyOwner public {  
  
    totalSupply = totalSupply.add(amount);  
    balances[account] = balances[account].add(amount);  
    emit Mint(address(0), account, amount);  
    emit Transfer(address(0), account, amount);  
}
```

Recommendation

The owner should carefully manage the credentials of the owner's account. We advised considering an extra-strong security mechanism that the actions may be quarantined by many users instead of one. The owner could also renounce the contract ownership for a period of time or pass the access to the zero address.

ST - Stop Transactions

Criticality	minor
Location	contract.sol#L85

Description

The contract owner has the authority to stop transactions for all users. The owner may do that by calling the `pause` function.

```
function pause() onlyOwner whenNotPaused public {  
    paused = true;  
    emit Pause();  
}
```

Recommendation

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.

BC - Blacklisted Contracts

Criticality	medium
Location	contract.sol#L220

Description

The contract owner has the authority to stop contracts from transactions. The owner may take advantage of it by calling the `blacklistAddress` function.

```
function blackListAddress(address listAddress, bool isBlackListed) public  
whenNotPaused onlyOwner returns (bool success) {  
    return super._blackList(listAddress, isBlackListed);  
}
```

Recommendation

The team should carefully manage the private keys of the owner's account. We strongly recommend a powerful security mechanism that will prevent a single user from accessing the contract admin functions. That risk can be prevented by temporarily locking the contract or renouncing ownership.

Contract Diagnostics

● Critical ● Medium ● Minor

Severity	Code	Description
●	L01	Public Function could be Declared External
●	L04	Conformance to Solidity Naming Conventions
●	L11	Unnecessary Boolean equality

L01 - Public Function could be Declared External

Criticality	minor
Location	contract.sol#L51,85,93,101,107,220,244,256

Description

Public functions that are never called by the contract should be declared external to save gas.

```
mint  
burn  
blackListAddress  
allowance  
balanceOf  
unpause  
pause  
transferOwnership
```

Recommendation

Use the external attribute for functions never called from the contract.

L04 - Conformance to Solidity Naming Conventions

Criticality

minor

Location

contract.sol#L125,138,142,156,163,168,174,200,204,208,212,216,244

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
_value  
_subtractedValue  
_spender  
_addedValue  
_to  
_from  
_owner  
...
```

Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>.

L11 - Unnecessary Boolean equality

Criticality

minor

Location

contract.sol#L125,142

Description

The comparison to boolean constants is redundant. Boolean constants can be used directly and do not need to be compared to true or false.

```
require(bool)(tokenBlacklist[msg.sender] == false)
```

Recommendation

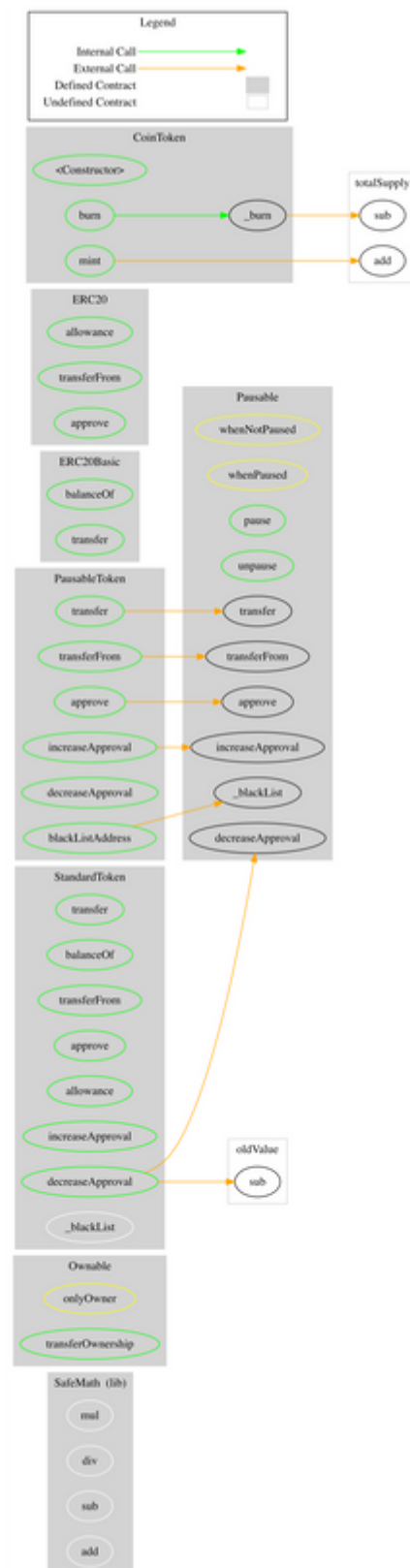
Remove the equality to the boolean constant.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
SafeMath	Library			
	mul	Internal		
	div	Internal		
	sub	Internal		
	add	Internal		
Ownable	Implementation			
	transferOwnership	Public	✓	onlyOwner
Pausable	Implementation	Ownable		
	pause	Public	✓	onlyOwner whenNotPaused
	unpause	Public	✓	onlyOwner whenPaused
ERC20Basic	Implementation			
	balanceOf	Public		-
	transfer	Public	✓	-
ERC20	Implementation	ERC20Basic		
	allowance	Public		-
	transferFrom	Public	✓	-
	approve	Public	✓	-
StandardToken	Implementation	ERC20		
	transfer	Public	✓	-
	balanceOf	Public		-
	transferFrom	Public	✓	-
	approve	Public	✓	-

	allowance	Public		-
	increaseApproval	Public	✓	-
	decreaseApproval	Public	✓	-
	_blackList	Internal	✓	
PausableToken	Implementation	StandardToken, Pausable		
	transfer	Public	✓	whenNotPaused
	transferFrom	Public	✓	whenNotPaused
	approve	Public	✓	whenNotPaused
	increaseApproval	Public	✓	whenNotPaused
	decreaseApproval	Public	✓	whenNotPaused
	blackListAddress	Public	✓	whenNotPaused onlyOwner
CoinToken	Implementation	PausableToken		
	<Constructor>	Public	✓	-
	burn	Public	✓	-
	_burn	Internal	✓	
	mint	Public	✓	onlyOwner

Contract Flow



Domain Info

Domain Name	zversus.io
Registry Domain ID	d78703517ed94161b1e8de375cc31687-DONUTS
Creation Date	2022-01-10T13:51:00Z
Updated Date	2022-04-20T12:38:14Z
Registry Expiry Date	2023-01-10T13:51:00Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain has been created in 6 months before the creation of the audit.

There is no public billing information, the creator is protected by the privacy settings.

Summary

There are some functions that can be abused by the owner like minting tokens and blacklisting addresses. If the contract owner abuses the mint functionality, then the contract will be highly inflated. A multi-wallet signing pattern will provide security against potential hacks. Temporarily locking the contract or renouncing ownership will eliminate all the contract threats.

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Cyberscope

Audit Report

Z Versus Project

August 2022

Type BEP20

Network BSC

Address 0xf3E6e095150e58fcDa99C0A98d8EC67990D831DF

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Contract Review

Contract Name	StandardToken
Compiler Version	v0.8.4+commit.c7e474f2
Optimization	200 runs
Licence	MIT
Explorer	https://bscscan.com/token/0xf3E6e095150e58fcDa99C0A98d8EC67990D831DF
Symbol	ZVERSUS
Decimals	9
Total Supply	1,000,000,000
Domain	https://www.zversus.io

Source Files

Filename	SHA256
contract.sol	76a02bb3f53a7b637f9e82a8e028312a552cc25084a21a5b473cefef61083878

Audit Updates

Initial Audit	24th August 2022
Corrected	

Contract Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OCTD	Transfers Contract's Tokens	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	ULTW	Transfers Liquidity to Team Wallet	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Contract Diagnostics

The contract is a pure implementation of the ERC20 protocol. As a result, there are no diagnostics.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
Ownable	Implementation	Context		
	<Constructor>	Public	✓	-
	owner	Public		-
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_setOwner	Private	✓	
SafeMath	Library			
	add	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	mod	Internal		
	sub	Internal		
	div	Internal		
	mod	Internal		

BaseToken	Implementation			
StandardToken	Implementation	IERC20, Ownable, BaseToken		
	<Constructor>	Public	Payable	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-
	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	increaseAllowance	Public	✓	-
	decreaseAllowance	Public	✓	-
	_transfer	Internal	✓	
	_mint	Internal	✓	
	_approve	Internal	✓	
	_beforeTokenTransfer	Internal	✓	

Contract Flow



Domain Info

Domain Name	zversus.io
Registry Domain ID	d78703517ed94161b1e8de375cc31687-DONUTS
Creation Date	2022-01-10T13:51:00Z
Updated Date	2022-04-20T12:38:14Z
Registry Expiry Date	2023-01-10T13:51:00Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain was created 8 months before the creation of the audit. It will expire in 5 months.

There is no public billing information, the creator is protected by the privacy settings.

Summary

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Cyberscope

Audit Report

Z Versus Project

August 2022

Type BEP20

Network BSC TESTNET

Address 0x5Fd9187eCC1283392b94bde85490569f54451cA0

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Contract Review

Contract Name	ZVersusProject
Compiler Version	v0.8.9+commit.e5eed63a
Testing Deploy	https://testnet.bscscan.com/token/0x5Fd9187eCC1283392b94bde85490569f54451cA0
Symbol	ZVERSUS
Decimals	9
Total Supply	130,000
Domain	

Source Files

Filename	SHA256
contract.sol	080e6c3adcdc39ed09f57d8fd926748937219c3d268f51f940c5dc72f84667ac

Audit Updates

Initial Audit	11th July 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v1/audit.pdf
Corrected phase 1	24th August 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v2/audit.pdf
Corrected phase 2	20th September 2022

Contract Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OCTD	Transfers Contract's Tokens	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	ULTW	Transfers Liquidity to Team Wallet	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Contract Diagnostics

● Critical ● Medium ● Minor / Informative

Severity	Code	Description	Status
●	STC	Succeeded Transfer Check	Unresolved
●	CO	Code Optimization	Unresolved
●	L01	Public Function could be Declared External	Unresolved
●	L04	Conformance to Solidity Naming Conventions	Unresolved
●	L07	Missing Events Arithmetic	Unresolved
●	L12	Using Variables before Declaration	Unresolved
●	L14	Uninitialized Variables in Local Scope	Unresolved

STC - Succeeded Transfer Check

Criticality	minor / informative
Location	contract.sol#L489
Status	Unresolved

Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
bool success;  
uint256 marketingBalance = amtBalance;  
(success,) = marketingWallet.call{value: marketingBalance, gas: 35000}("");
```

Recommendation

The contract should check if the result of the transfer methods is successful.

CO - Code Optimization

Criticality	minor / informative
Location	contract.sol#L117
Status	Unresolved

Description

There are code segments that could be optimized. A segment may be optimized so that it becomes a smaller size, consumes less memory, executes more rapidly, or performs fewer operations.

Since buy fees are fixes they can be removed from the structure.

```
struct Fees {  
    uint16 buyFee;  
    uint16 sellFee;  
    uint16 transferFee;  
}  
  
Fees public _taxRates = Fees({  
    buyFee: 0,  
    sellFee: 200,  
    transferFee: 1000  
});
```

Recommendation

Rewrite some code segments so the runtime will be more performant.

L01 - Public Function could be Declared External

Criticality	minor / informative
Location	contract.sol#L266,347,508
Status	Unresolved

Description

Public functions that are never called by the contract should be declared external to save gas.

```
transfer
getCirculatingSupply
enableTrading
```

Recommendation

Use the external attribute for functions never called from the contract.

L04 - Conformance to Solidity Naming Conventions

Criticality	minor / informative
Location	contract.sol#L33,355,111,112,113,114,115,123,129,130,131,147
Status	Unresolved

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow `_` at the beginning of the `mixed_case` match for private variables and unused parameters.

```
WETH
_antiSnipe
_antiBlock
startingSupply
_name
_symbol
_decimals
_tTotal
_taxRates
...
```

Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>.

L07 - Missing Events Arithmetic

Criticality	minor / informative
Location	contract.sol#L377,386
Status	Unresolved

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
swapThreshold = (_tTotal * thresholdPercent) / thresholdDivisor  
piSwapPercent = priceImpactSwapPercent
```

Recommendation

Emit an event for critical parameter changes.

L12 - Using Variables before Declaration

Criticality	minor / informative
Location	contract.sol#L537
Status	Unresolved

Description

The contract is using a variable before the declaration. This is usually happening either if it has not been declared yet or the variable has been declared in a different scope.

check

Recommendation

The variables should be declared before any usage of them.

L14 - Uninitialized Variables in Local Scope

Criticality	minor / informative
Location	contract.sol#L536,537
Status	Unresolved

Description

There are variables that are defined in the local scope and are not initialized.

checked
check

Recommendation

All the local scoped variables should be initialized.

Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IFactoryV2	Interface			
	getPair	External		-
	createPair	External	✓	-
IV2Pair	Interface			
	factory	External		-
	getReserves	External		-
	sync	External	✓	-
IRouter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	addLiquidity	External	✓	-
	swapExactETHForTokens	External	Payable	-
	getAmountsOut	External		-

	getAmountsIn	External		-
IRouter02	Interface	IRouter01		
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokens	External	✓	-
Protections	Interface			
	checkUser	External	✓	-
	setLaunch	External	✓	-
	setLpPair	External	✓	-
	setProtections	External	✓	-
	removeSniper	External	✓	-
ZVersusProject	Implementation	IERC20		
	<Constructor>	Public	Payable	-
	<Receive Ether>	External	Payable	-
	transferOwner	External	✓	onlyOwner
	renounceOwnership	External	✓	onlyOwner
	setOperator	External	✓	-
	renounceOriginalDeployer	External	✓	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	allowance	External		-
	balanceOf	Public		-
	transfer	Public	✓	-
	approve	External	✓	-
	_approve	Internal	✓	

	approveContractContingency	External	✓	onlyOwner
	transferFrom	External	✓	-
	setNewRouter	External	✓	onlyOwner
	setLpPair	External	✓	onlyOwner
	setInitializer	External	✓	onlyOwner
	isExcludedFromFees	External		-
	isExcludedFromProtection	External		-
	setExcludedFromFees	Public	✓	onlyOwner
	setExcludedFromProtection	External	✓	onlyOwner
	getCirculatingSupply	Public		-
	removeSniper	External	✓	onlyOwner
	setProtectionSettings	External	✓	onlyOwner
	lockTaxes	External	✓	onlyOwner
	setTaxes	External	✓	onlyOwner
	setWallet	External	✓	onlyOwner
	setSwapSettings	External	✓	onlyOwner
	setPriceImpactSwapAmount	External	✓	onlyOwner
	setContractSwapEnabled	External	✓	onlyOwner
	excludePresaleAddresses	External	✓	onlyOwner
	_hasLimits	Internal		
	_transfer	Internal	✓	
	contractSwap	Internal	✓	inSwapFlag
	_checkLiquidityAdd	Internal	✓	
	enableTrading	Public	✓	onlyOwner
	sweepContingency	External	✓	onlyOwner
	multiSendTokens	External	✓	onlyOwner
	finalizeTransfer	Internal	✓	
	takeTaxes	Internal	✓	

Contract Flow

Domain Info

Domain Name	zversus.io
Registry Domain ID	d78703517ed94161b1e8de375cc31687-DONUTS
Creation Date	2022-01-10T13:51:00Z
Updated Date	2022-04-20T12:38:14Z
Registry Expiry Date	2023-01-10T13:51:00Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain was created 8 months before the creation of the audit. It will expire in 5 months.

There is no public billing information, the creator is protected by the privacy settings.

Summary

Z Versus Project is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 5% fees on sell transactions and there is no fee on buy transactions.

Disclaimer

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment.

Cyberscope team provides no guarantees against the sale of team tokens or the removal of liquidity by the project audited in this document. Always Do your own research and protect yourselves from being scammed.

The Cyberscope team has audited this project for general information and only expresses their opinion based on similar projects and checks from popular diagnostic tools. Under no circumstances did Cyberscope receive a payment to manipulate those results or change the awarding badge that we will be adding in our website.

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About Cyberscope

Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Cyberscope and Coinscope are aiming to make crypto discoverable and efficient globally. They provide all the essential tools to assist users draw their own conclusions.



The Cyberscope team

<https://www.cyberscope.io>



Cyberscope

Audit Report

Z Versus Project

September 2022

Type BEP20

Network BSC

Address 0xe39007760AaFA23051910243B2Ff5c2f5081F765

Audited by © cyberscope

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Contract Review

Contract Name	ZVersusProject
Compiler Version	v0.8.17+commit.8df45f5f
Optimization	5000 runs
Licence	MIT
Explorer	https://bscscan.com/token/0xe39007760AaFA23051910243B2Ff5c2f5081F765
Symbol	ZVERSUS
Decimals	18
Total Supply	1,000,000,000
Domain	zversus.io

Source Files

Filename	SHA256
contract.sol	25c176dd23051cd90e4a3310b278622131b197e5341f946219f720803ebc46b7

Audit Updates

Initial Audit	11th July 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v1/audit.pdf
Corrected phase 1	24th August 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v2/audit.pdf
Corrected phase 2	20th September 2022 https://github.com/cyberscope-io/audits/blob/main/zversus/v3/audit.pdf
Corrected phase 3	21st September 2022

Contract Analysis

● Critical ● Medium ● Minor / Informative ● Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OCTD	Transfers Contract's Tokens	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	ULTW	Transfers Liquidity to Team Wallet	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Contract Diagnostics

● Critical ● Medium ● Minor / Informative

Severity	Code	Description	Status
●	STC	Succeeded Transfer Check	Unresolved
●	L01	Public Function could be Declared External	Unresolved
●	L04	Conformance to Solidity Naming Conventions	Unresolved
●	L07	Missing Events Arithmetic	Unresolved
●	L12	Using Variables before Declaration	Unresolved
●	L14	Uninitialized Variables in Local Scope	Unresolved

STC - Succeeded Transfer Check

Criticality	minor / informative
Location	contract.sol#L489
Status	Unresolved

Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
bool success;  
uint256 marketingBalance = amtBalance;  
(success,) = marketingWallet.call{value: marketingBalance, gas: 35000}("");
```

Recommendation

The contract should check if the result of the transfer methods is successful.

L01 - Public Function could be Declared External

Criticality	minor / informative
Location	contract.sol#L266,347,508
Status	Unresolved

Description

Public functions that are never called by the contract should be declared external to save gas.

```
transfer  
getCirculatingSupply  
enableTrading
```

Recommendation

Use the external attribute for functions never called from the contract.

L04 - Conformance to Solidity Naming Conventions

Criticality	minor / informative
Location	contract.sol#L33,355,111,112,113,114,115,123,129,130,131,147
Status	Unresolved

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
WETH
_antiSnipe
_antiBlock
startingSupply
_name
_symbol
_decimals
_tTotal
_taxRates
...
```

Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>.

L07 - Missing Events Arithmetic

Criticality	minor / informative
Location	contract.sol#L377,386
Status	Unresolved

Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
swapThreshold = (_tTotal * thresholdPercent) / thresholdDivisor  
piSwapPercent = priceImpactSwapPercent
```

Recommendation

Emit an event for critical parameter changes.

L12 - Using Variables before Declaration

Criticality	minor / informative
Location	contract.sol#L537
Status	Unresolved

Description

The contract is using a variable before the declaration. This is usually happening either if it has not been declared yet or the variable has been declared in a different scope.

check

Recommendation

The variables should be declared before any usage of them.

L14 - Uninitialized Variables in Local Scope

Criticality	minor / informative
Location	contract.sol#L537,536
Status	Unresolved

Description

These are variables that are defined in the local scope and are not initialized.

check
checked

Recommendation

All the local scoped variables should be initialized.

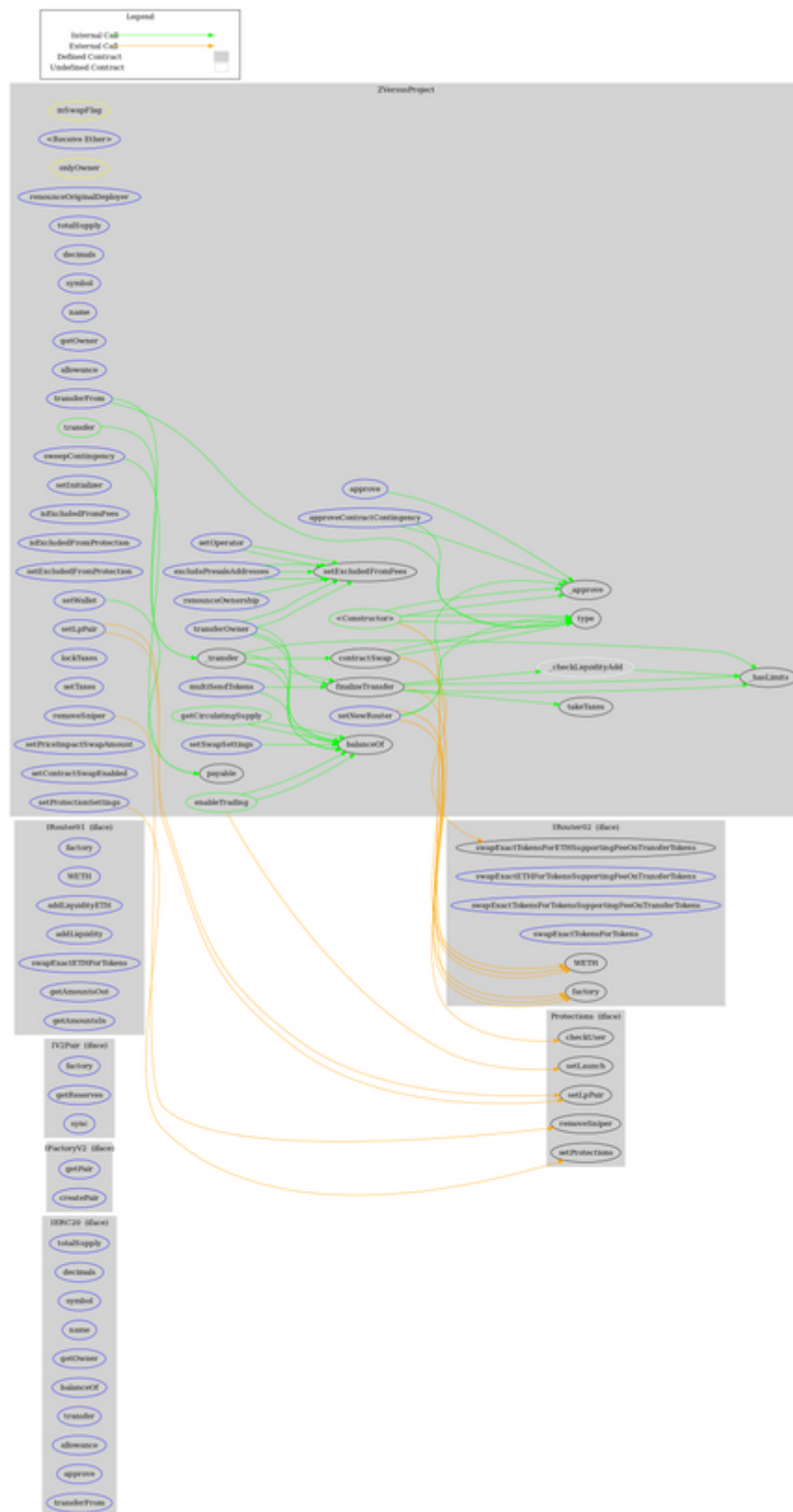
Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IFactoryV2	Interface			
	getPair	External		-
	createPair	External	✓	-
IV2Pair	Interface			
	factory	External		-
	getReserves	External		-
	sync	External	✓	-
IRouter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	addLiquidity	External	✓	-
	swapExactETHForTokens	External	Payable	-
	getAmountsOut	External		-

	getAmountsIn	External		-
IRouter02	Interface	IRouter01		
	swapExactTokensForETHSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingFeeOnTransferTokens	External	Payable	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokens	External	✓	-
Protections	Interface			
	checkUser	External	✓	-
	setLaunch	External	✓	-
	setLpPair	External	✓	-
	setProtections	External	✓	-
	removeSniper	External	✓	-
ZVersusProject	Implementation	IERC20		
	<Constructor>	Public	Payable	-
	<Receive Ether>	External	Payable	-
	transferOwner	External	✓	onlyOwner
	renounceOwnership	External	✓	onlyOwner
	setOperator	External	✓	-
	renounceOriginalDeployer	External	✓	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	allowance	External		-
	balanceOf	Public		-
	transfer	Public	✓	-
	approve	External	✓	-
	_approve	Internal	✓	
	approveContractContingency	External	✓	onlyOwner

	transferFrom	External	✓	-
	setNewRouter	External	✓	onlyOwner
	setLpPair	External	✓	onlyOwner
	setInitializer	External	✓	onlyOwner
	isExcludedFromFees	External		-
	isExcludedFromProtection	External		-
	setExcludedFromFees	Public	✓	onlyOwner
	setExcludedFromProtection	External	✓	onlyOwner
	getCirculatingSupply	Public		-
	removeSniper	External	✓	onlyOwner
	setProtectionSettings	External	✓	onlyOwner
	lockTaxes	External	✓	onlyOwner
	setTaxes	External	✓	onlyOwner
	setWallet	External	✓	onlyOwner
	setSwapSettings	External	✓	onlyOwner
	setPriceImpactSwapAmount	External	✓	onlyOwner
	setContractSwapEnabled	External	✓	onlyOwner
	excludePresaleAddresses	External	✓	onlyOwner
	_hasLimits	Internal		
	_transfer	Internal	✓	
	contractSwap	Internal	✓	inSwapFlag
	_checkLiquidityAdd	Internal	✓	
	enableTrading	Public	✓	onlyOwner
	sweepContingency	External	✓	onlyOwner
	multiSendTokens	External	✓	onlyOwner
	finalizeTransfer	Internal	✓	
	takeTaxes	Internal	✓	

Contract Flow



Domain Info

Domain Name	zversus.io
Registry Domain ID	d78703517ed94161b1e8de375cc31687-DONUTS
Creation Date	2022-01-10T13:51:00Z
Updated Date	2022-04-20T12:38:14Z
Registry Expiry Date	2023-01-10T13:51:00Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain was created 8 months before the creation of the audit. It will expire in 5 months.

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Z Versus Project is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 5% fees on sell transactions and there is no fee on buy transactions.

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