

DECEMBER 2019

CONTRACT: **TWIG EOSIO TOKEN**



SECURITY AUDIT

Critical vulnerabilities: **0**

Issues that can lead to loss of funds, as well as problems that violate essential functionality of contracts.

Errors and problems: **0**

Issues of logic and functionality of contracts that do not lead to loss of funds.

Optimization: **0**

Opportunities to reduce transaction costs and reduce the number of lines of code.

Notes and recommendations: **1**

Tips and tricks, as well as errors that do not affect the functionality of the Smart-Contract.

In the TWIG Token Smart-Contract were found no vulnerabilities and no backdoors, the contract matches all standards. The code was manually reviewed for all commonly known and more specific vulnerabilities. So it is safe for use in the main network.

Note: owner of the contract has permission to block tokens of any account and redeem tokens at a price he choose.

Description of the smart-contract:

The original code was based on the eosio.token.

Additional actions are called "Blacklist", "Buyout" and "Frozen".

Symbol: TWIG.

Decimals: 4.

List of standard actions:

1. Close
2. Create
3. Issue
4. Open
5. Retire
6. Transfer

(More info -
<https://github.com/EOSIO/eos/wiki/Tutorial-eosio-token-Contract>)

Custom actions:

1. Blacklist
2. Buyout
3. Frozen

Description of custom actions:

1. blacklist(name account, bool a) - add/remove account to blacklist. Available only to the owner.

```
{account:"accountname",a:1}
```

if a = true, - add.

if a = false, - remove.

2. buyout(name from, asset quantity, float rate, string memo) - buy tokens of any account for EOS. Available only to the owner.

```
{from:"accountname",quantity:"10.0000  
TWIG",rate:0.05}
```

The "rate" parameter is calculated in EOS payed per 1 Token. For example, rate 0.05 means that 1 Token is going to be purchased for 0.05 EOS.

3. frozen(name account, vector<token::listFroze> list) - freezing tokens of any account for defined period. Available only to the owner.

```
{account:"accountname",list:[{"quantity":"2.0000  
TWIG","date":100},{ "quantity":"1.0000  
TWIG","date":200}]}
```

The second parameter is an array (square brackets) of objects (braces

Example of object:

```
{"quantity":"3.0000 TWIG","date":360},
```

quantity - amount of tokens, date - period (seconds).

List of only object:

```
[{"quantity":"3.0000 TWIG","date":360}]
```

(means, that 3 tokens is going to be blocked for 360 seconds).

List of couple objects:

```
[{"quantity":"2.0000 TWIG","date":100},  
{"quantity":"1.0000 TWIG","date":200}]
```

(means, that 2 tokens is going to be blocked for 100 seconds, 1 token for 200 seconds).

This audit is not a call to participate in the project and applies only to the Smart Contract code at the specified address.

If you have any questions or are interested in developing/auditing Smart Contracts, please contact us and we will consult you.

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