



SMART CONTRACT AUDIT



NIFTSY

P R O J E C T :

N I F T S Y

# METHODOLOGY

## Main tests list:

- ◆ Best code practices
- ◆ ERC20/BEP20 compliance (if applicable)
- ◆ Logical bugs
- ◆ General Denial Of Service(DOS)
- ◆ Locked ether
- ◆ Private data leaks
- ◆ Using components with known vulns
- ◆ Weak PRNG
- ◆ Unused vars
- ◆ Unchecked call return method
- ◆ Code with no effects
- ◆ Function visibility
- ◆ Use of deprecated functions
- ◆ Authorization issues
- ◆ Re-entrancy
- ◆ Arithmetic Over/Under Flows
- ◆ Hidden Malicious Code
- ◆ External Contract Referencing
- ◆ Short Address/ Parameter Attack
- ◆ Race Conditions / Front Running
- ◆ Uninitialized Storage Pointers
- ◆ Floating Points and Precision
- ◆ Signatures Replay
- ◆ Pool Asset Security (backdoors in the underlying ERC-20)

# STRUCTURE OF CONTRACT WRAPPERBASE.SOL

# Vulnerabilities not detected

## Contract methods analysis

```
wrap721(  
    address _underlineContract,  
    uint256 _tokenId,  
    uint256 _unwrapAfter,  
    uint256 _transferFee,  
    address _royaltyBeneficiary,  
    uint256 _royaltyPercent,  
    uint256 _unwrapFeeThreshold
```

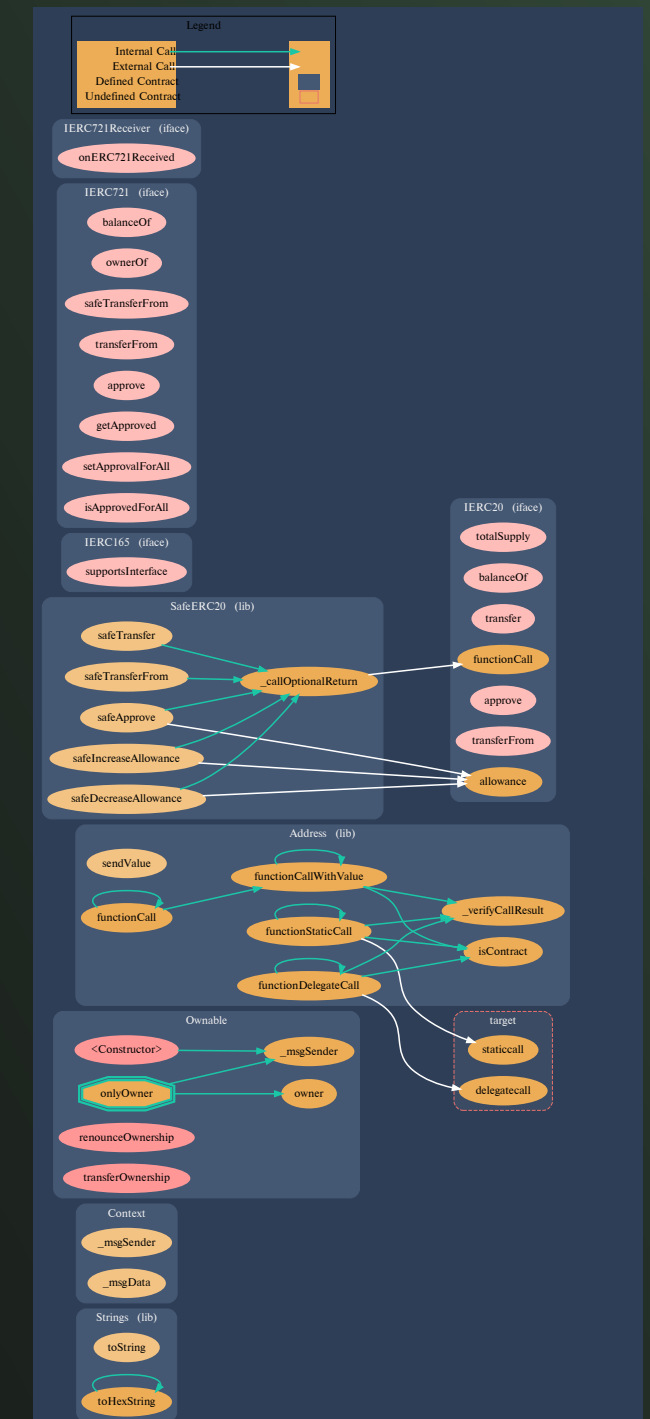
# Vulnerabilities not detected

```
addNativeCollateral(uint256 _wrappedTokenId)
```

## Vulnerabilities not detected

```
unWrap721(uint256_tokenId)
```

## Vulnerabilities not detected



Pic. 1.1.

WrapperBase.sol

tokenURI(uint256 \_tokenId)  
Vulnerabilities not detected

getTokenValue(uint256 \_tokenId)  
Vulnerabilities not detected

getWrappedToken(uint256 \_tokenId)  
Vulnerabilities not detected

setFee(uint256 \_fee, uint256 \_startDate)  
Vulnerabilities not detected

\_beforeTokenTransfer(address from, address to, uint256  
tokenId)  
Vulnerabilities not detected

\_chargeFee(address \_payer, uint256 \_amount)  
Vulnerabilities not detected

\_beforeUnWrapHook(uint256 \_tokenId)  
Vulnerabilities not detected

\_getProtokolFeeAmount()  
Vulnerabilities not detected

# STRUCTURE OF CONTRACT WRAPPERWITHERC20COLLATERAL.SOL

Constructor lacks check for 0 address.

## Contract methods analysis

`addERC20Collateral(uint256 _wrappedTokenId, address _erc20, uint256 _amount)`

Vulnerabilities not detected

`setCollateralStatus(address _erc20, bool _isEnabled)`

Vulnerabilities not detected

`setMaxERC20CollateralCount(uint16 _count)`

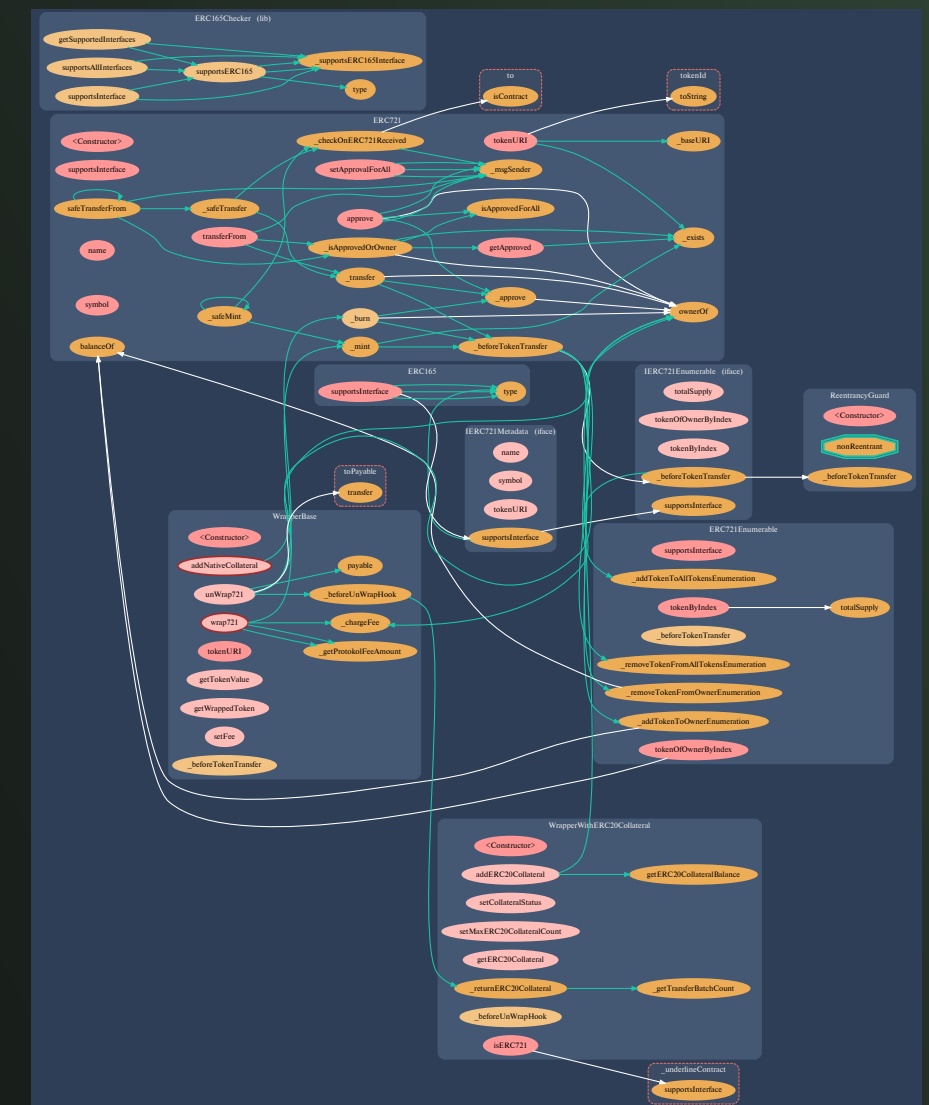
Vulnerabilities not detected

`getERC20Collateral(uint256 _wrappedId)`

Vulnerabilities not detected

Pic. 1.2.

WrapperBase.sol



getERC20CollateralBalance(uint256 \_wrappedId, address  
\_erc20)

Vulnerabilities not detected

isERC721(address \_underlineContract, bytes4 \_interfaceId)

Vulnerabilities not detected

\_beforeUnWrapHook(uint256 \_tokenId)

Vulnerabilities not detected

\_returnERC20Collateral(uint256 \_tokenId)

Vulnerabilities not detected

\_getTransferBatchCount()

Vulnerabilities not detected



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