

Analysis 32b09c5e-834d-4303-89e9-9593c7cf35e8

MythX

Started Sun Mar 05 2023 19:44:07 GMT+0000 (Coordinated Universal Time)

Finished Sun Mar 05 2023 19:44:44 GMT+0000 (Coordinated Universal Time)

Mode Quick

Client Tool Mythx-Cli-0.7.3

Main Source File Contracts/MyOwnTokenBonding-Flat.Sol

DETECTED VULNERABILITIES

(HIGH (MEDIUM (LOW 0 0 13

ISSUES

UNKNOWN Arithmetic operation "+" discovered

This plugin produces issues to support false positive discovery within MythX.

SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
function increaseAllowance(address spender, uint256 addedValue) public virtual returns (bool) {
   address owner = _msgSender();
   approve(owner, spender, allowance(owner spender + addedValue);
   return true;
}
```

UNKNOWN Arithmetic operation "-" discovered

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SWC-101

Source file

 ${\tt contracts/MyOwnTokenBonding-flat.sol}$

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SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
require(fromBalance >= amount, "ERC20: transfer amount exceeds balance");
unchecked {

_balances[from] = fromBalance - amount;

// Overflow not possible: the sum of all balances is capped by totalSupply, and the sum is preserved by

// decrementing then incrementing.
```

UNKNOWN Arithmetic operation "+=" discovered

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SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
// Overflow not possible: the sum of all balances is capped by totalSupply, and the sum is preserved by

// decrementing then incrementing.

_balances to += amount;

}
```

UNKNOWN Arithmetic operation "+=" discovered

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SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

```
__beforeTokenTransfer(address(0), account, amount);

490

__totalSupply += amount;

492

unchecked {

493

// Overflow not possible: balance + amount is at most totalSupply + amount, which is checked above.
```

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contracts/MyOwnTokenBonding-flat.sol

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Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
require(accountBalance >= amount, "ERC20: burn amount exceeds balance");

unchecked {
    _balances[account] = accountBalance - amount;

// Overflow not possible: amount <= accountBalance <= totalSupply.

_totalSupply -= amount;
```

UNKNOWN Arithmetic operation "-=" discovered

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SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

```
520    _balances[account] = accountBalance - amount;
521    // Overflow not possible: amount <= accountBalance <= totalSupply.
522    _totalSupply -= amount;
523 }</pre>
```

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SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
require(currentAllowance >= amount, "ERC20: insufficient allowance");
unchecked {
    _approve(owner, spender, currentAllowance - amount);
}

573 }
574 }
```

UNKNOWN Arithmetic operation "+" discovered

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SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
function _mint(address account, uint256 amount) internal virtual override {
require(ERC20 totalSupply() + amount <= cap(), "ERC20Capped: cap exceeded");
super._mint(account, amount);
}
```

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contracts/MyOwnTokenBonding-flat.sol

Locations

```
(PRICE_PER_TOKEN * totalSupply()) /

10 ** decimals();

1460    uint256 curveBasePrice = (value * _currentPrice)) / 10 ** decimals();

1462    uint256 curveExtraPrice = (((value * PRICE_PER_TOKEN) /

1463    10 ** decimals()) * (value)) / (2 * 10 ** decimals());
```

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Source file

contracts/MyOwnTokenBonding-flat.sol

```
1480 | 10 ** decimals();

1481    uint256 curveBasePrice = ((amount * _currentPrice)) / 10 ** decimals();

1482    uint256 curveExtraPrice = (( amount * PRICE_PER_TOKEN /

1483    10 ** decimals() * amount) / (2 * 10 ** decimals());

1494    return (curveBasePrice + curveExtraPrice);

1485  }
```

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contracts/MyOwnTokenBonding-flat.sol

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contracts/MyOwnTokenBonding-flat.sol

Locations

```
uint256 curveBasePrice = ((amount * _currentPrice)) / 10 ** decimals();
uint256 curveExtraPrice = (((amount * PRICE_PER_TOKEN) /

1482
1483
18** decimals() * amount) / (2 * 10 ** decimals());
return (curveBasePrice + curveExtraPrice);
}
```

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contracts/MyOwnTokenBonding-flat.sol

Locations

```
1482     uint256 curveExtraPrice = (((amount * PRICE_PER_TOKEN) /
1483     10 ** decimals()) * amount) / (2 * 10 ** decimals());
1484     return (curveBasePrice + curveExtraPrice);
1485  }
```

UNKNOWN Arithmetic operation "*" discovered

This plugin produces issues to support false positive discovery within MythX.

SWC-101

Source file

contracts/MyOwnTokenBonding-flat.sol

A floating pragma is set.

SWC-103

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

contracts/MyOwnTokenBonding-flat.sol

Locations

```
// OpenZeppelin Contracts v4.4.1 (utils/Context.sol)

pragma solidity \^8.8.8.

/**
```

LOW A floating pragma is set.

SWC-103

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

contracts/MyOwnTokenBonding-flat.sol

Locations

```
// OpenZeppelin Contracts (last updated v4.7.0) (access/Ownable.sol)

prayma solidity ^0.8.0

/**
```

LOW A floating pragma is set.

SWC-103

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Source file

contracts/MyOwnTokenBonding-flat.sol

```
// OpenZeppelin Contracts (last updated v4.6.0) (token/ERC20/IERC20.sol)

pragma solidity ^0.8.0

/**
```

A floating pragma is set.

SWC-103

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

contracts/MyOwnTokenBonding-flat.sol

Locations

```
// OpenZeppelin Contracts v4.4.1 (token/ERC20/extensions/IERC20Metadata.sol)
203
     pragma solidity ^0.8.0;
205
206
```

LOW A floating pragma is set.

SWC-103

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Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
// OpenZeppelin Contracts (last updated v4.8.0) (token/ERC20/ERC20.sol)
232
     pragma solidity ^0.8.0;
233
234
```

LOW A floating pragma is set.

SWC-103

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Source file

contracts/MyOwnTokenBonding-flat.sol

```
// OpenZeppelin Contracts v4.4.1 (token/ERC20/extensions/ERC20Capped.sol)
622
     pragma solidity ^0.8.0;
623
624
625
```

A floating pragma is set.

SWC-103

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Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
// OpenZeppelin Contracts v4.4.1 (utils/introspection/IERC165.sol)

pragma solidity \^8.8.0 |

/**
```

LOW A floating pragma is set.

SWC-103

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Source file

contracts/MyOwnTokenBonding-flat.sol

Locations

```
// OpenZeppelin Contracts v4.4.1 (utils/introspection/ERC165.sol)

pragma solidity \@.8.8 |

/**
```

LOW A floating pragma is set.

SWC-103

The current pragma Solidity directive is ""^0.8.1"". 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

contracts/MyOwnTokenBonding-flat.sol

```
717 // OpenZeppelin Contracts (last updated v4.8.0) (utils/Address.sol)
718
719 pragma solidity ^0.8.1
720
721 /**
```

A floating pragma is set.

SWC-103

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Source file

contracts/MyOwnTokenBonding-flat.sol

Locations



LOW A floating pragma is set.

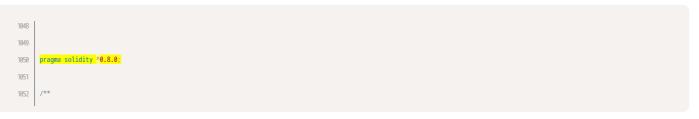
SWC-103

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Source file

contracts/MyOwnTokenBonding-flat.sol

Locations



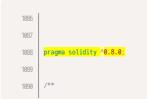
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contracts/MyOwnTokenBonding-flat.sol



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Source file

 $contracts/MyOwnTokenBonding\hbox{-}flat.sol$

