



# Security Assessment

# PRDT Finance

Audited by Vibranium Audits on 07 June 2024

Revised on 13 June, 2024



Vibranium Audits Verified on June 7th, 2024  
Revised on June 13th, 2024

## PRDT Finance

The security assessment was prepared by Vibranium Audits.

### Executive Summary

TYPES

DEFI

ECOSYSTEM

EVM

METHODS

Manual Review & Static Analysis

LANGUAGE

Rust

TIMELINE

Delivered on 13/06/2024

KEY COMPONENTS

Withdraw/Deposit

CODEBASE

<https://github.com/PRDTfinance/SolanaProBalanceContracts/tree/main>

COMMITTS

51d5ae9dbba2b50b0143f29dde99b09d2fc6e9cc

### Vulnerability Summary

01

Total Findings

01

Resolved

0

Mitigated

0

Partially Resolved

0

Acknowledged

0

Declined

0

Unresolved



0

Critical

0 Resolved

Critical vulnerabilities are usually straightforward to exploit and can lead to the loss of user funds or contract state manipulation by external or internal actors.



0

High

0 Resolved

High vulnerabilities are usually harder to exploit, requiring specific conditions, or have a more limited scope, but can still lead to the loss of user funds or contract state manipulation by external or internal actors.



1

Medium

1 Resolved

Medium vulnerabilities are usually limited to state manipulations, but cannot lead to assets loss. Major deviations from best practices are also in this category.



0

Low

0 Resolved

Low vulnerabilities are related to outdated and unused code or minor gas optimization. These issues won't have a significant impact on code execution, but affect the code quality.



0

Informational

0 Resolved

Informational errors are often recommendations to improve the style of the code or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

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## Disclaimer

## CODEBASE | PRDT FINANCE

### Repository


<https://github.com/PRDTfinance/SolanaProBalanceContracts/tree/main>

### Commit

51d5ae9dbba2b50b0143f29dde99b09d2fc6e9cc

# AUDIT SCOPE | PRDT FINANCE

1 file audited   ● 1 file with Acknowledged findings   ● 1 files with Resolved findings

| ID    | Files  | Commit Hash                              |
|-------|--|--|
| ● PRA |  Vulnerabilities under lib.rs | 51d5ae9dbba2b50b0143f29dde99b09d2fc6e9cc |

## APPROACH & METHODS | PRDT FINANCE

This report has been prepared for PRDT FINANCE(2024) to discover issues and vulnerabilities in the source code of the PRDT project as well as any contract dependencies that were not part of an officially recognized library. A comprehensive examination has been performed, utilizing Manual Review and Static Analysis techniques.

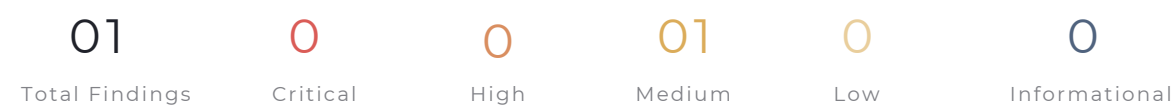
The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Assessing the code base to ensure compliance with current best practices and industry standards
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire code base by industry experts.

The security assessment resulted in findings that ranged from critical to informational. We recommend addressing these findings to ensure a high level of security standards and industry practices. We suggest recommendations that could better serve the project from the security perspective:

- Testing the smart contracts against both common and uncommon attack vectors.
- Enhance general coding practices for better structures of source codes.
- Review unit tests to cover the possible use cases.
- Review functions for readability, especially for future development work.

# FINDINGS | PRDT



This report has been prepared to discover issues and vulnerabilities for PRDT. Through this audit, we have uncovered 1 issue of medium severity level. Utilizing the techniques of Manual Review & Static Analysis to complement rigorous manual code reviews, we discovered the following findings:

| ID     | Title              | Category      | Severity | Status    |
|--------|--------------------|---------------|----------|-----------|
| PRA-01 | Potential Overflow | Logical Issue | Medium   | ● Revised |

## PRA-01 | Potential Overflow

| Category      | Severity | Location | Status    |
|---------------|----------|----------|-----------|
| Logical Issue | ● Medium | lib.rs   | ● Revised |

### Description

In one single occasion throughout the project, there is an arithmetic operation being executed:

```
LINE364: const MASTER_SIZE: usize = size_of::<Master>() + 8;
```

Doing arithmetic operations this simple way exposes the code to potential integer OverFlow problems as it should be avoided to use simple +, -, \*, or / in calculations.

Reference: <https://www.sec3.dev/blog/understanding-arithmetic-overflow-underflows-in-rust-and-solana-smart-contracts>

### Recommendation

- Use checked additions to make sure the variable doesn't cause any OverFlow issues.
- Example:

|     |   |  |
|-----|---|--|
| 245 | - | state.total_loan_notes -= note_amount;   |
| 246 | - | state.total_deposits += token_amount;  |
| 245 | + | state.total_loan_notes = state.total_loan_notes.checked_sub(note_amount).unwrap(); |
| 246 | + | state.total_deposits = state.total_deposits.checked_add(token_amount).unwrap();    |

### Revision

- The PRDT Finance team has judged that since MASTER is a fixed value and the potential overflow isn't possible directly on it, it was ruled that calculations will be done correctly in the future wherever MASTER is used alongside dynamic values.



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