|  |
| --- |
| commonIO  Branch : main  Version not provided  Code analysis |

|  |
| --- |
| **By: Administrator**  **2025-03-30** |

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# Introduction

This document contains results of the code analysis of commonIO.

# Configuration

* Quality Profiles
  + Names: Sonar way [Java];
  + Files: 6927accf-ff3b-42e6-b456-40b0dfdfb4f1.json;
* Quality Gate
  + Name: Sonar way
  + File: Sonar way.xml

# Synthesis

## Analysis Status

|  |  |  |  |
| --- | --- | --- | --- |
| Reliability | Security | Security Review | Maintainability |
| C.png | **A.png** | **A.png** | **A.png** |

## Quality gate status

|  |  |
| --- | --- |
| Quality Gate Status | **OK.png** |

|  |  |
| --- | --- |
| Metric | Value |
| New Issues | OK |

## Metrics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Coverage | Duplication | Comment  density | Median number of lines of code per file | Adherence to coding standard |
| 0.0 % | **0.0 %** | **58.8 %** | **90.0** | **99.3 %** |

## Tests

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Total | Success Rate | Skipped | Errors | Failures |
| 0 | **0 %** | **0** | **0** | **0** |

## Detailed technical debt

|  |  |  |  |
| --- | --- | --- | --- |
| Reliability | Security | Maintainability | Total |
| 0d 1h 40min | - | 1d 5h 47min | 1d 7h 27min |

## Metrics Range

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Cyclomatic  Complexity | Cognitive  Complexity | Lines of code per file | Comment  density (%) | Coverage | Duplication (%) |
| Min | 1.0 | 0.0 | 6.0 | 0.5 | 0.0 | 0.0 |
| Max | 854.0 | 564.0 | 3100.0 | 74.3 | 0.0 | 0.0 |

## Volume

|  |  |
| --- | --- |
| Language | Number |
| Java | 3100 |
| Total | 3100 |

# Issues

## Charts

## Issues count by severity and type

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type / Severity | INFO | MINOR | MAJOR | CRITICAL | BLOCKER |
| BUG | 0 | 16 | 2 | 0 | 0 |
| VULNERABILITY | 0 | 0 | 0 | 0 | 0 |
| CODE\_SMELL | 46 | 6 | 21 | 14 | 0 |

## Issues List

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Description | Type | Severity | Number |
| "InterruptedException" and "ThreadDeath" should not be ignored |  | BUG | MAJOR | 1 |
| Strings and Boxed types should be compared using "equals()" |  | BUG | MAJOR | 1 |
| Ints and longs should not be shifted by zero or more than their number of bits-1 |  | BUG | MINOR | 14 |
| Math operands should be cast before assignment |  | BUG | MINOR | 2 |
| Methods should not be empty |  | CODE\_SMELL | CRITICAL | 1 |
| String literals should not be duplicated |  | CODE\_SMELL | CRITICAL | 6 |
| Cognitive Complexity of methods should not be too high |  | CODE\_SMELL | CRITICAL | 7 |
| Deprecated code should be removed |  | CODE\_SMELL | INFO | 37 |
| Track uses of "TODO" tags |  | CODE\_SMELL | INFO | 8 |
| Methods should not perform too many tasks (aka Brain method) |  | CODE\_SMELL | INFO | 1 |
| Standard outputs should not be used directly to log anything |  | CODE\_SMELL | MAJOR | 1 |
| Methods should not have too many parameters |  | CODE\_SMELL | MAJOR | 1 |
| Utility classes should not have public constructors |  | CODE\_SMELL | MAJOR | 8 |
| Labels should not be used |  | CODE\_SMELL | MAJOR | 1 |
| Sections of code should not be commented out |  | CODE\_SMELL | MAJOR | 2 |
| "for" loop stop conditions should be invariant |  | CODE\_SMELL | MAJOR | 6 |
| "java.nio.Files#delete" should be preferred |  | CODE\_SMELL | MAJOR | 2 |
| Exceptions in "throws" clauses should not be superfluous |  | CODE\_SMELL | MINOR | 1 |
| Local variable and method parameter names should comply with a naming convention |  | CODE\_SMELL | MINOR | 2 |
| Loops should not contain more than a single "break" or "continue" statement |  | CODE\_SMELL | MINOR | 1 |
| Jump statements should not be redundant |  | CODE\_SMELL | MINOR | 2 |

# Security Hotspots

## Security hotspots count by category and priority

|  |  |  |  |
| --- | --- | --- | --- |
| Category / Priority | LOW | MEDIUM | HIGH |
| LDAP Injection | 0 | 0 | 0 |
| Object Injection | 0 | 0 | 0 |
| Server-Side Request Forgery (SSRF) | 0 | 0 | 0 |
| XML External Entity (XXE) | 0 | 0 | 0 |
| Insecure Configuration | 0 | 0 | 0 |
| XPath Injection | 0 | 0 | 0 |
| Authentication | 0 | 0 | 0 |
| Weak Cryptography | 0 | 0 | 0 |
| Denial of Service (DoS) | 0 | 0 | 0 |
| Log Injection | 0 | 0 | 0 |
| Cross-Site Request Forgery (CSRF) | 0 | 0 | 0 |
| Open Redirect | 0 | 0 | 0 |
| Permission | 0 | 0 | 0 |
| SQL Injection | 0 | 0 | 0 |
| Encryption of Sensitive Data | 0 | 0 | 0 |
| Traceability | 0 | 0 | 0 |
| Buffer Overflow | 0 | 0 | 0 |
| File Manipulation | 0 | 0 | 0 |
| Code Injection (RCE) | 0 | 0 | 0 |
| Cross-Site Scripting (XSS) | 0 | 0 | 0 |
| Command Injection | 0 | 0 | 0 |
| Path Traversal Injection | 0 | 0 | 0 |
| HTTP Response Splitting | 0 | 0 | 0 |
| Others | 0 | 0 | 0 |

## Security hotspots List