

BNUMMET

VERSION 1

Code analysis

By: default

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INTRODUCTION

This document contains results of the code analysis of BNumMet.

CONFIGURATION

- Quality Profiles
 - Names: Sonar way [Python]; Sonar way [XML];
 - Files: AYZE7i3U2dITZFwgEli2.json; AYZE7jaV2dITZFwgEmPx.json;
- Quality Gate
 - Name: Sonar way
 - File: Sonar way.xml

SYNTHESIS

ANALYSIS STATUS

| Reliability | Security | Security Review | Maintainability |
|-------------|----------|-----------------|-----------------|
| A | A | A | A |

QUALITY GATE STATUS

| | |
|---------------------|--------|
| Quality Gate Status | Passed |
|---------------------|--------|

| Metric | Value |
|------------------------------------|-------|
| Reliability Rating on New Code | OK |
| Security Rating on New Code | OK |
| Maintainability Rating on New Code | OK |
| Coverage on New Code | OK |
| Duplicated Lines (%) on New Code | OK |

METRICS

| Coverage | Duplication | Comment density | Median number of lines of code per file | Adherence to coding standard |
|----------|-------------|-----------------|---|------------------------------|
| 98.2 % | 0.0 % | 43.4 % | 206.0 | 99.7 % |

TESTS

| Total | Success Rate | Skipped | Errors | Failures |
|-------|--------------|---------|--------|----------|
|-------|--------------|---------|--------|----------|

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| | | | | |
|----|---------|---|---|---|
| 95 | 100.0 % | 0 | 0 | 0 |
|----|---------|---|---|---|

DETAILED TECHNICAL DEBT

| Reliability | Security | Maintainability | Total |
|-------------|----------|-----------------|------------|
| - | - | 0d 4h 5min | 0d 4h 5min |

METRICS RANGE

| | Cyclomatic Complexity | Cognitive Complexity | Lines of code per file | Comment density (%) | Coverage | Duplication (%) |
|-----|-----------------------|----------------------|------------------------|---------------------|----------|-----------------|
| Min | 0.0 | 0.0 | 0.0 | 22.2 | 95.5 | 0.0 |
| Max | 295.0 | 269.0 | 2028.0 | 74.1 | 100.0 | 0.0 |

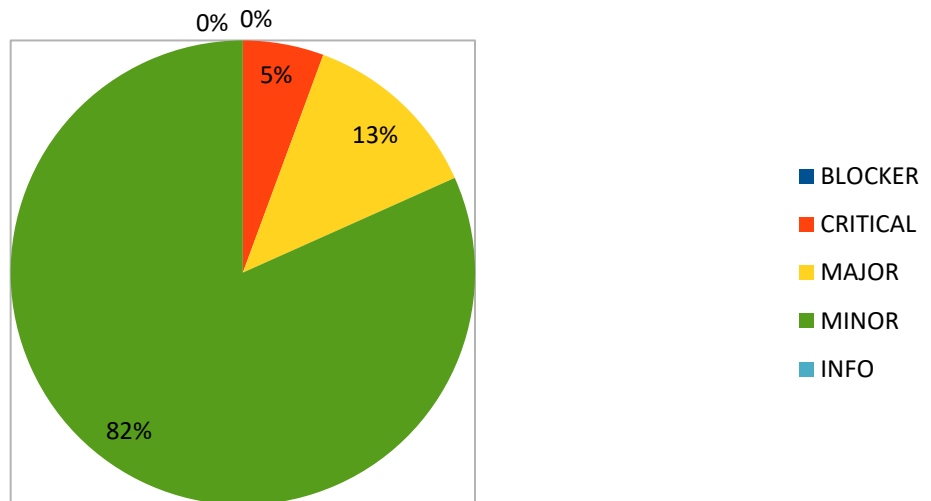
VOLUME

| Language | Number |
|----------|--------|
| Python | 2028 |
| Total | 2028 |

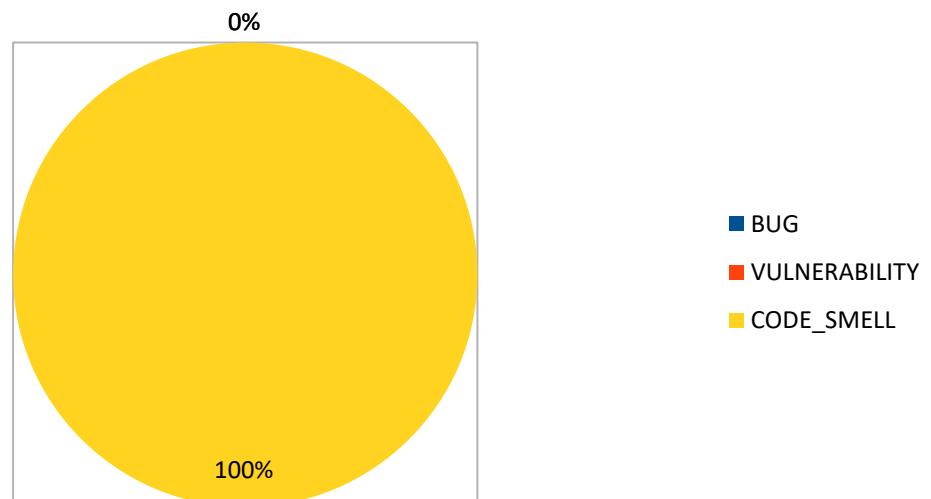
ISSUES

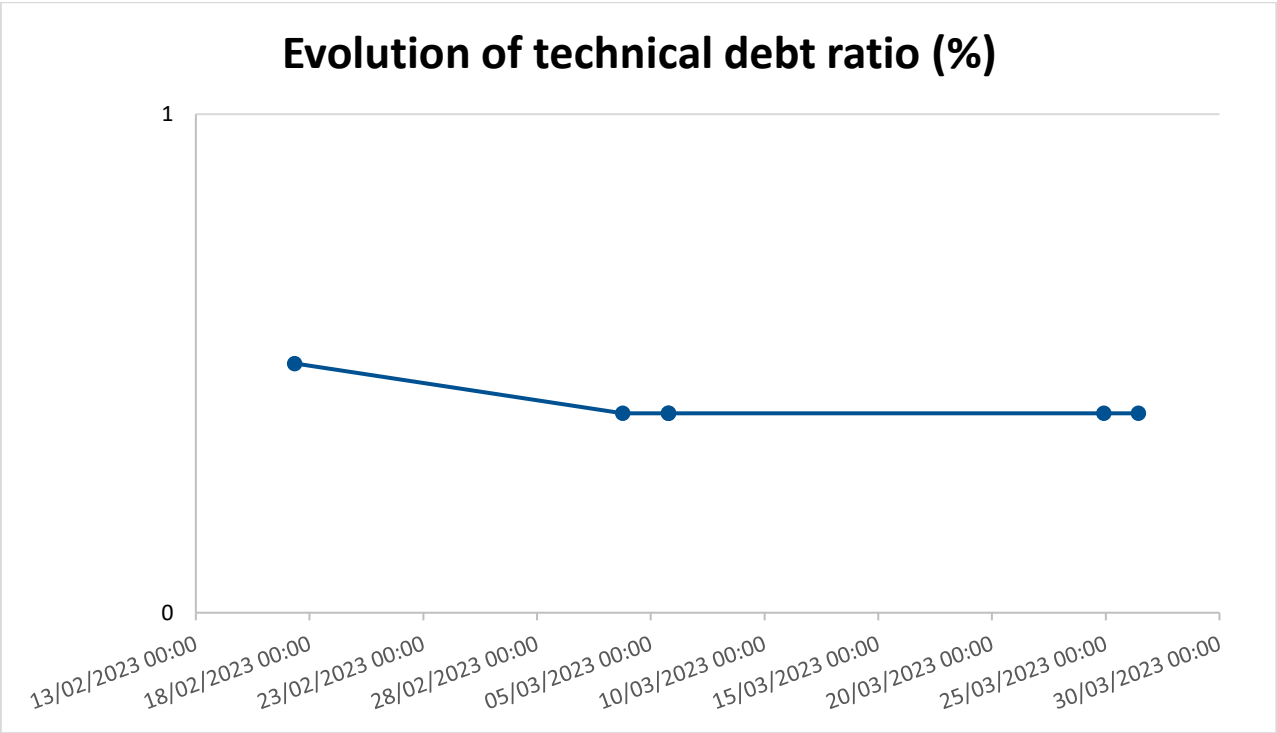
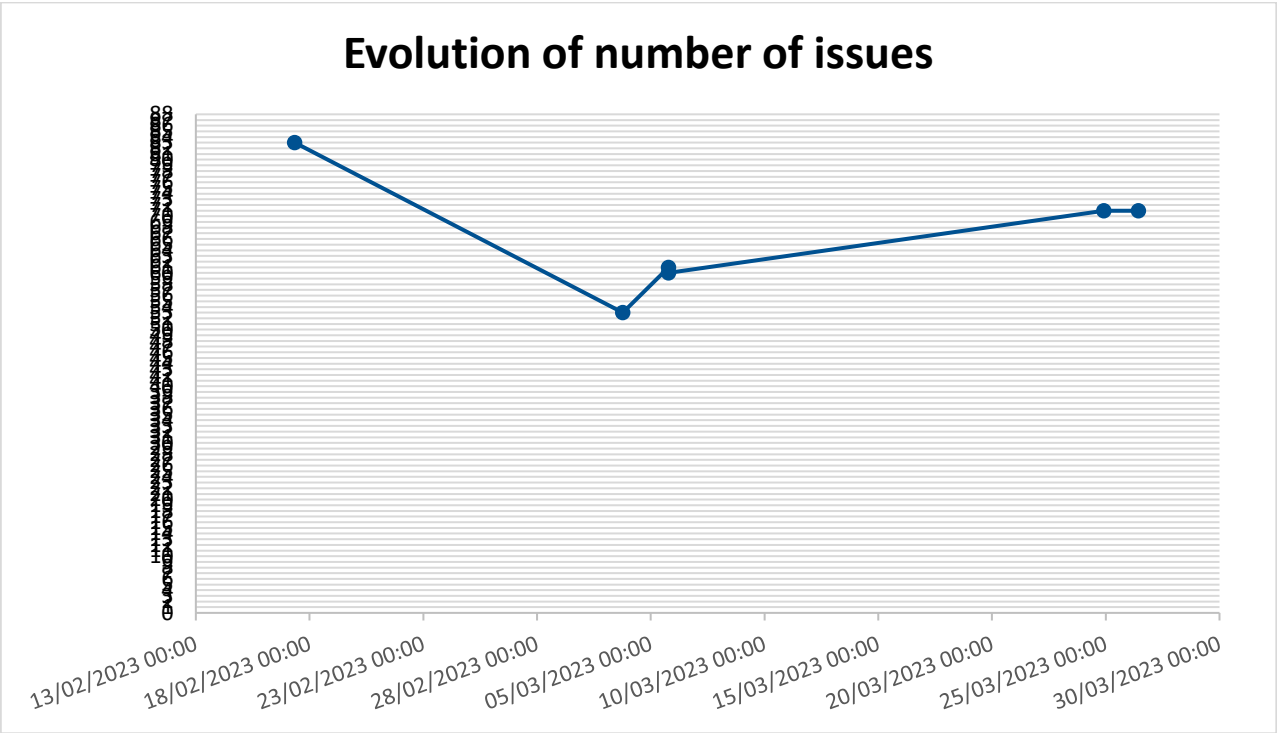
CHARTS

Number of issues by severity



Number of issues by type





| ISSUES COUNT BY SEVERITY AND TYPE | | | | | |
|-----------------------------------|------|-------|-------|----------|---------|
| Type / Severity | INFO | MINOR | MAJOR | CRITICAL | BLOCKER |
| BUG | 0 | 0 | 0 | 0 | 0 |
| VULNERABILITY | 0 | 0 | 0 | 0 | 0 |
| CODE_SMELL | 0 | 58 | 9 | 4 | 0 |

| ISSUES LIST | | | | |
|--|--|------------|----------|--------|
| Name | Description | Type | Severity | Number |
| String literals should not be duplicated | Duplicated string literals make the process of refactoring error-prone, since you must be sure to update all occurrences. On the other hand, constants can be referenced from many places, but only need to be updated in a single place. Noncompliant Code Example With the default threshold of 3: <code>def run(): prepare("this is a duplicate") # Noncompliant - "this is a duplicate" is duplicated 3 times execute("this is a duplicate") release("this is a duplicate")</code> Compliant Solution <code>ACTION_1 = "action1" def run(): prepare(ACTION_1) execute(ACTION_1) release(ACTION_1)</code> Exceptions No issue will be raised on: duplicated string in decorators strings with less than 5 characters strings with only letters, numbers and underscores <code>@app.route("/api/users/", methods=['GET', 'POST', 'PUT']) def users(): pass @app.route("/api/projects/", methods=['GET', 'POST', 'PUT']) # Compliant def projects(): pass</code> | CODE_SMELL | CRITICAL | 1 |
| Cognitive Complexity of functions should not be too high | Cognitive Complexity is a measure of how hard the control flow of a function is to understand. Functions with high Cognitive Complexity will be difficult to maintain. See Cognitive Complexity | CODE_SMELL | CRITICAL | 3 |
| Sections of code should not be commented out | Programmers should not comment out code as it bloats programs and reduces readability. Unused code should be deleted and can be retrieved from source control history if required. | CODE_SMELL | MAJOR | 7 |
| Function names should comply with a naming convention | Shared coding conventions allow teams to collaborate efficiently. This rule checks that all function names match a provided regular expression. Noncompliant Code Example With the default provided regular expression: | CODE_SMELL | MAJOR | 2 |

| | | | | |
|--|--|------------|-------|----|
| | <code>^[a-z_][a-z0-9_]*\$ def MyFunction(a,b): ... Compliant</code> <code>Solution def my_function(a,b): ...</code> | | | |
| Method names should comply with a naming convention | <p>Sharing some naming conventions is a key point to make it possible for a team to efficiently collaborate. This rule allows to check that all method names match a provided regular expression. Noncompliant Code Example With default provided regular expression: <code>^[a-z_][a-z0-9_]*\$</code></p> <p><code>class MyClass: def MyMethod(a,b): ... Compliant</code></p> <p><code>Solution class MyClass: def my_method(a,b): ...</code></p> | CODE_SMELL | MINOR | 6 |
| Field names should comply with a naming convention | <p>Sharing some naming conventions is a key point to make it possible for a team to efficiently collaborate. This rule allows to check that field names match a provided regular expression. Noncompliant Code Example With the default regular expression <code>^[_a-z][_a-z0-9]*\$</code>: <code>class MyClass: myField = 1</code></p> <p><code>Compliant Solution class MyClass: my_field = 1</code></p> | CODE_SMELL | MINOR | 28 |
| Local variable and function parameter names should comply with a naming convention | <p>Shared naming conventions allow teams to collaborate effectively. This rule raises an issue when a local variable or function parameter name does not match the provided regular expression. Exceptions Loop counters are ignored by this rule. <code>for i in range(limit): # Compliant print(i)</code></p> | CODE_SMELL | MINOR | 24 |

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 |

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| | | | |
|----------------------------|---|---|---|
| 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