

- Secrets
- ABAP
- Apex
- C**
- C++
- CloudFormation
- COBOL
- C#
- CSS
- Flex
- Go
- HTML
- Java
- JavaScript
- Kotlin
- Kubernetes
- Objective C
- PHP
- PL/I
- PL/SQL
- Python
- RPG
- Ruby
- Scala
- Swift
- Terraform
- Text
- TypeScript
- T-SQL
- VB.NET
- VB6
- XML



## C static code analysis

Unique rules to find Bugs, Vulnerabilities, Security Hotspots, and Code Smells in your C code

All rules **311**

Vulnerability **13**

Bug **74**

Security Hotspot **18**

Code Smell **206**

Quick Fix **14**

Tags

Search by name...



"memset" should not be used to delete sensitive data

Vulnerability

POSIX functions should not be called with arguments that trigger buffer overflows

Vulnerability

XML parsers should not be vulnerable to XXE attacks

Vulnerability

Function-like macros should not be invoked without all of their arguments

Bug

The address of an automatic object should not be assigned to another object that may persist after the first object has ceased to exist

Bug

"pthread\_mutex\_t" should be unlocked in the reverse order they were locked

Bug

"pthread\_mutex\_t" should be properly initialized and destroyed

Bug

"pthread\_mutex\_t" should not be consecutively locked or unlocked twice

Bug

Functions with "noreturn" attribute should not return

Bug

"memcpy" should only be called with pointers to trivially copyable types with no padding

Bug

"#include" paths should be portable

Analyze your code

Code Smell Major pitfall

The way an `#include` directive finds an actual file is implementation-defined, and in practice, it slightly differs in different systems.

Therefore, a good practice is to identify the files to include in the most straightforward way possible to reduce the risk of inconsistent behaviors.

This rule raises an issue when:

- The case of the file in the `#include` directive does not match the case of the file on the disk (the inclusion would not work on a case-sensitive OS),
- The file name in the `#include` directive contains trailing spaces (they would be ignored on Windows but considered on Unix).

Noncompliant Code Example

```
#include "Foo.h" // Noncompliant if the actual file name is "  
#include "bar.h " // Noncompliant, trailing space
```

Available In:

sonarlint | sonarcloud | sonarqube Developer Edition

© 2008-2022 SonarSource S.A., Switzerland. All content is copyright protected. SONAR, SONARSOURCE, SONARLINT, SONARQUBE and SONARCLOUD are trademarks of SonarSource S.A. All other trademarks and copyrights are the property of their respective owners. All rights are expressly reserved.  
[Privacy Policy](#)

Stack allocated memory and non-owned memory should not be freed

 Bug

Closed resources should not be accessed

 Bug

Dynamically allocated memory should be released

 Bug

Freed memory should not be used