

- 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

Keywords shall not be used as macros identifiers

Analyze your code

Code Smell Major based-on-misra unpredictable pitfall

In programming languages keywords have a special meaning and are reserved to the language. It is hence a bad idea to define macros with keywords as macro identifier as it can easily lead to undefined behavior:

- The same object might be defined differently in different places, which violates the One Definition Rule
- If you include any header from the standard library, it is undefined behavior to define such macros

Additionally, it is very awkward for anyone reading the code to have a keyword that means something different.

Noncompliant Code Example

```
#define int some_other_type // Noncompliant
#include <stdlib.h>;
```

See

- MISRA C:2012, 20.4 - A macro shall not be defined with the same name as a keyword

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