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 578	🔒 Vulnerability 13	🐛 Bug 111	Security Hotspot 18	Code Smell 436	Quick Fix 68

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

Assigning to an optional should directly target the optional

🐛 Bug

Result of the standard remove algorithms should not be ignored

🐛 Bug

"std::scoped_lock" should be created with constructor arguments

🐛 Bug

Objects should not be sliced

🐛 Bug

Immediately dangling references should not be created

🐛 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

---

Increment should not be used to set boolean variables to 'true'

Analyze your code

😟 Code Smell   🔺 Major ⃠ ❓   🏷 obsolete confusing

It is possible to use the increment operator `++`, to set the value of a `bool`(C++) or `_Bool`(C) variable to `true`. But this feature has been deprecated in C++ since the 1998 version of the standard, removed in C++17, and even where allowed, is simply confusing.

Noncompliant Code Example

```
bool alive;
...
alive++;
```

Compliant Solution

```
bool alive;
...
alive = true;
```

See

- ISO/IEC 14882:1998, 5.3.2

Available In:

sonarlint | sonarcloud | sonarqube Developer Edition

🐞 Bug

"std::move" and "std::forward" should not be confused

🐞 Bug

A call to "wait()" on a "std::condition_variable" should have a condition

🐞 Bug

A pointer to a virtual base class shall only be cast to a pointer to a derived class by means of dynamic_cast

🐞 Bug

Functions with "noreturn" attribute should not return

🐞 Bug

RAII objects should not be temporary

🐞 Bug

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

🐞 Bug

"memcpy", "memmove", and "memset" should only be called with pointers to trivially copyable types

🐞 Bug

"std::auto_ptr" should not be used

🐞 Bug

Destructors should be "noexcept"

🐞 Bug