



Apex

ABAP

С

C++

CloudFormation

COBOL

C#

CSS

Flex

Go =GO

HTML 5

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

ΑII 578 **6** Vulnerability 13 € rules

R Bug (111)

o Security Hotspot

Tags

"final" classes should not have

⊗ Code (436)

Quick 68 Fix

Analyze your code

"virtual" functions

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

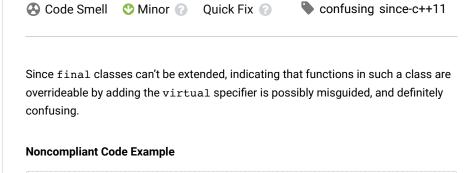
"pthread_mutex_t" should be unlocked in the reverse order they were locked

📆 Bug

"pthread_mutex_t" should be properly initialized and destroyed

📆 Bug

"pthread_mutex_t" should not be consecutively locked or unlocked



```
class Base {
  virtual void f1();
};
class C final : Base {
  virtual void f1(); // Noncompliant
  virtual void f2(); // Noncompliant
};
```

Compliant Solution

```
class Base {
  virtual void f1();
};
class C final : Base {
 void f1() override;
  void f2();
};
```

• {rule:cpp:S3471} - "override" or "final" should be used instead of "virtual"

Available In:

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I
🖟 Bug
"std::move" and "std::forward" should not be confused
∰ Bug
A call to "wait()" on a "std::condition_variable" should have a condition
n Bug
A pointer to a virtual base class shall only be cast to a pointer to a derived class by means of dynamic_cast
ਜ਼ਿ Bug
Functions with "noreturn" attribute should not return
👬 Bug
RAII objects should not be temporary
्रे 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
n Bug
Destructors should be "noexcept"
🖟 Bug