



ABAP

Apex

С

C++

CloudFormation

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PHP

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VB.NET

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XML



C++ static code analysis

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

All 578 6 Vulnerability (13) rules

R Bug (111)

• Security Hotspot **⊗** Code (436)

Quick 68 Fix

Analyze your code

Tags

functions

A "struct" should not have member

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

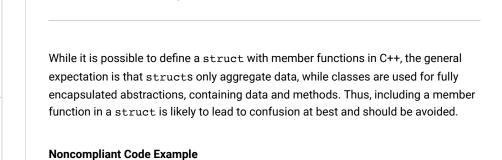
"pthread_mutex_t" should be unlocked in the reverse order they were locked

📆 Bug

"pthread_mutex_t" should be properly initialized and destroyed

📆 Bug

"pthread_mutex_t" should not be consecutively locked or unlocked



pitfall

```
struct S
 S(int x, int y) : x(x), y(y) {}
  int y;
 public:
    int fun(); // Noncompliant
};
```

Compliant Solution

```
struct S
 S(int x, int y) : x(x), y(y) {}
  int x;
  int y;
};
```

Exceptions

- Constructors are ignored for this rule, because they are the only way that a struct designer can enforce that all fields of a struct are correctly initialized.
- Overload of the function operator '()'. It is a common practice to use struct as a functor.

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