



ABAP

Apex

С

C++

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C++ static code analysis

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

ΑII 578 rules

6 Vulnerability 13

R Bug (111)

used

• Security Hotspot **⊗** Code (436)

Quick 68 Fix

Analyze your code

Tags

"sizeof(sizeof(...))" should not be

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

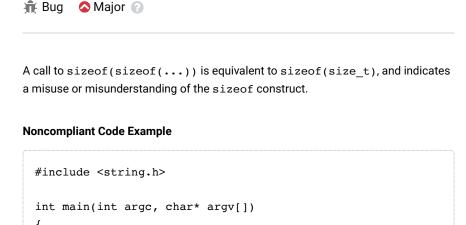
"pthread_mutex_t" should be unlocked in the reverse order they were locked

📆 Bug

"pthread_mutex_t" should be properly initialized and destroyed

📆 Bug

"pthread_mutex_t" should not be consecutively locked or unlocked



```
char buffer[42];
char buffer2[sizeof(sizeof(buffer))]; /* Noncompliant - a s
memcpy(buffer, "Hello, world!", strlen("Hello, world!")+1);
memcpy(buffer2, buffer, sizeof(buffer)); /* Buffer overflow
return 0;
```

Compliant Solution

```
#include <string.h>
int main(int argc, char* argv[])
  char buffer[42];
  char buffer2[sizeof(buffer)]; /* Compliant */
  memcpy(buffer, "Hello, world!", strlen("Hello, world!")+1);
  memcpy(buffer2, buffer, sizeof(buffer));
  return 0;
```

Available In:

sonarlint ⊕ | sonarcloud む | sonarqube \ \ \ \ Edition

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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