



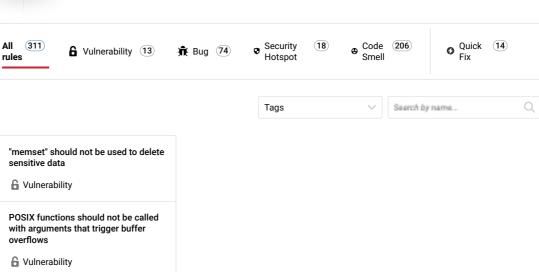
👬 Bug

👬 Bug

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



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



Stack allocated memory and nonowned memory should not be freed

👬 Bug

Closed resources should not be accessed

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Dynamically allocated memory should be released

Bug

Freed memory should not be used

"if ... else if" constructs should end with "else" clauses

Analyze your code



based-on-misra cert

This rule applies whenever an if statement is followed by one or more else if statements; the final else if should be followed by an else statement.

The requirement for a final else statement is defensive programming.

The else statement should either take appropriate action or contain a suitable comment as to why no action is taken. This is consistent with the requirement to have a final default clause in a switch statement.

Noncompliant Code Example

```
if (x == 0) {
 doSomething();
} else if (x == 1) {
 doSomethingElse();
```

Compliant Solution

```
if (x == 0) {
 doSomething();
} else if (x == 1) {
 doSomethingElse();
} else {
 error();
}
```

Exceptions

When all branches of an if-else if end with return, break or throw, the code that comes after the if implicitly behaves as if it was in an else clause. This rule will therefore ignore that case.

See

- MISRA C:2004, 14.10 All if...else if constructs shall be terminated with an else
- MISRA C++:2008, 6-4-2 All if...else if constructs shall be terminated with an else clause.
- MISRA C:2012, 15.7 All if...else if constructs shall be terminated with an else statement
- $\bullet \,\, \underline{\text{CERT, MSC01-C.}} \, \cdot \, \text{Strive for logical completeness}$
- CERT, MSC57-J. Strive for logical completeness

Available In:

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